MUTOH

User's Guide

ValueJet 1304

COLOURGEN

ValueJet

For Maintenance Kits, Spares,
Service and Support
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In a domestic environment this product may cause radio interference in which case you may be required to take adequate measures.

Change the direction of the receiving antenna or feeder.

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IMPORTANT NOTICE

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This is a Class A product approved for industrial environments.

In a domestic environment this product may cause radio interference in which case you may be required to take adequate measures.

Change the direction of the receiving antenna or feeder.

This product is subject to the WEEE regulations.

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Chapter 1 Safety instructions

This chapter explains the installation of this printer, warning terms that operators need to know, caution items and warning labels on the printer main unit.

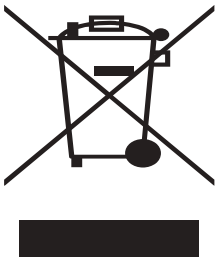
Important

- **When installing and operating this printer, be sure to follow the directions and warnings in this guide.**

1.1 Compliance with the following regulations

The CE marking is a mandatory European marking for certain product groups to indicate conformity with the essential health and safety requirements set out in European Directives.

By affixing the CE marking, the manufacturer, his authorized representative, or the person placing the product on the market or putting it into service ensures that the item meets all the essential requirements of all applicable EU directives and that the applicable conformity assessment procedures have been applied.



Your product is designed and manufactured with high-quality materials and components, which can be recycled and reused.

When this crossed-out wheeled bin submenu is attached to a product, it means the product is covered by the European Directive 2002/96/EC - WEEE regulation.

Please inform yourself about the local separate collection system for electrical and electronic products.

Please act according to local rules and do not dispose of your old products with your normal household waste. The correct disposal of your old product will help prevent potential negative consequences for the environment and human health.

1.2 Managing VOCs

When Mutoh **printers with (low)-Solvent inks are used, volatile organic compounds (VOCs) will be released.**

In order to protect human health and environment, VOCs must be managed. This means VOCs need to be controlled and compliance with all local, state and federal environmental, occupational health and safety regulations on VOCs in the atmosphere and in the workplace is needed.

The amount of released VOCs depends on multiple factors: room volume, unforced ventilation, print mode, number of printers in the room, heaters settings, kind of media, use of extra dryers, print production ...

Because of differences in local regulations and working conditions, it is recommended to consult a local consultancy agency to determine the regulations involved. An acknowledged laboratory can determine the total amount of released VOCs in the atmosphere and in the workplace. Consequently they can determine if forced ventilation for occupational health and air pollution control devices are needed. An engineering firm could be consulted on the installation of the ventilation system where prints are produced, handled and stored.

1.3 Handling inks + waste

Before handling inks / cleaning fluids and their waste, please read the Material Safety Data Sheets (MSDS) and the labels for important health, safety and environmental information carefully. All safety data sheets are periodically updated. These sheets and their translations can be found on www.Mutoh.eu

- Only use original manufacturer's ink and appropriate cleaning liquid. Before installing an ink holder, shake it gently. Doing so will preserve print quality.
- When ink is moved from a cold place to a warm place, keep the ink for three hours or more in the new printing environment before printing.
- Do not disassemble ink holders. Otherwise, ink may get in your eyes or on your skin. A disassembled ink holder can not be used either.
- When refilling ink, use original manufacturer's ink. Our Mutoh printers are designed to use original ink.
  If you use ink which are not produced by the original manufacturer:
  - Printing might become blurred and the end of the ink in the holder might not be detected correctly.
  - Any problems caused by using an ink holder other than those recommended above will not be covered by the warranty, and repair expenses will be paid by the customer.
- For handling waste: refer to section 13 on the MSDS-sheet.
- Inks / Waste
  - **General advice:** wear safety glasses and gloves especially when handling the waste ink.
  - **After spill:** remove contaminated clothing.
  - **After inhalation:** if difficulties occur after vapour / aerosol has been inhaled, remove to fresh air and seek medical attention.
  - **After skin contact:** wash thoroughly with soap and water.
  - **After eye contact:** wash affected eyes for at least 15 minutes under running water while the eyelids are held open.
  - **After swallowing:** rinse mouth and drink plenty of water. Never induce vomiting.

1.4 Warnings, cautions and notes

Safety terms in this manual and the contents of warning labels attached to the printer are categorized into the following three types, depending on the degree of risc (or the scale of accident).

Read the following explanations carefully and follow the instructions in this manual.

Safety terms	Details
⚠ **Important** ⚠	Must be followed carefully to avoid death or serious bodily injury.
⚠ **Caution** ⚠	Must be observed to avoid bodily injury (moderate or light) or damage to your equipment.
⚠ **Notes** ⚠	Contains important information and useful tips on the operation of your printer.

1.5 Safety instructions

Machines must be installed according to Mutoh**'s Installation Guide also after moving machines to another location; maintenance needs to be done according to the maintenance manual.**

- To prevent fire or electrical shock, never use a power supply source other than the one rated for the product in the country where you purchased the product.
- To prevent fire or electrical shock, machines must be connected to a properly grounded electrical power outlet. Do not connect the power cable to a power strip or a power source shared by other electrical devices.
  - Make sure that no foreign substances such as dust etc. are stuck to the power plug.
  - Make sure that the power plug is firmly inserted to the edge of the power socket.
- Use only the provided power cable. To prevent fire or electrical shock, follow the instructions below when handling the power cable:
  - Do not cut or modify the cable.
  - Do not put heavy objects on the cable.
  - Do not bend, twist, knot or pull the cable.
  - Do not wire the cable near equipment that generates heat.
  - Do not use the cable with any other electrical device.
  - Do not handle the cable with wet hands.
- Be aware of all caution and warning labels to avoid potentially hazardous situations.
- Do not disable any safety precautions systems.
- Do not operation the unit unless all parts are mounted.
- Do not stand on or place heavy objects on your machine. Doing so may result in the machine tipping or falling over and causing injury.
- Do not place the machine in humid and dusty areas or in areas exposed to flammables. Doing so may result in electrical shock or fire.
- Do not place the machine in the following areas. Doing so may result in the machine tipping or falling over and causing injury.
  - Unstable surfaces
  - Sloping floors
  - Areas subject to vibration by other equipment.
- Do not cover the ventilation hole of your machine with cloth, such as a blanket or table cloth. Doing so could obstruct ventilation and cause fire.
- Do not insert or drop metal or inflammable objects into openings, such as ventilation outlets. Doing so may result in electrical shock and fire.
- Do not touch the media guide during printing. It is hot and may cause a burn.
- Do not touch the media feed slot, platen or media guide while heaters are operating. They are hot and may cause a burn.
- Keep the machine horizontally during transportation.
- To prevent back pains and other injuries, always work with at least 4 people to unpack or move the machine.

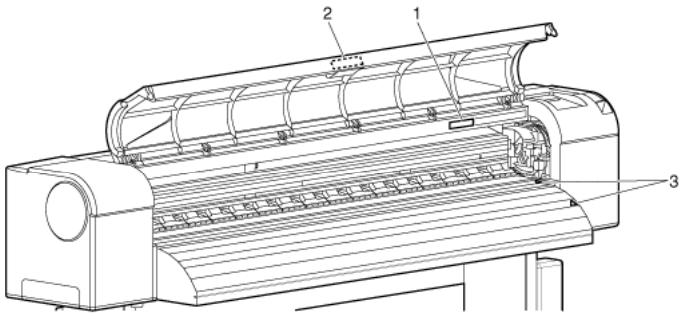
- Stop using your machine if a liquid has been spilled into it. This may cause electrical shock or fire. Switch the machine off as soon as possible, unplug the power cord, and contact your local Mutoh dealer.
- Be sure to power OFF the machine and unplug the power cable from the outlet before cleaning the machine. Use a damp cloth to clean the machine. Do not use thinner, benzene, alcohol or other active agents. Doing so may result in damage or paint peeling from the casing.
- Do not bend or pull the waste fluid tube. Doing so may cause waste fluid to leak out and malfunction of the product.
- Do not tilt the machine, place it against a wall or turn it upside down. Doing so may cause ink to leak inside the machine. Movement after transport is also not covered by the warranty.
- When cutting roll media, be careful of the following. Incorrect handling can result in injury to the hands and fingers from the razor blade.
  - When holding the media, do not place fingers over the media cut groove.
  - Move the razor blade slowly along the media cutting groove.
- Do NOT transport the machine to another room without contacting your local Authorized Mutoh Dealer.

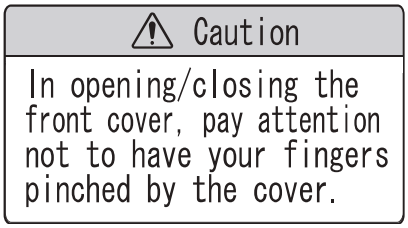
1.6 Warning labels

Be sure to read and understand the safety warnings before handling the printer.

A warning label is used on parts of the printer which especially needs your attention. Understand the locations and the descriptions of the danger associated with each label before operating the printer.

1.6.1 Handling the operation procedure labels



N°	Description
1	
2	
3	

Chapter 2 Product overview

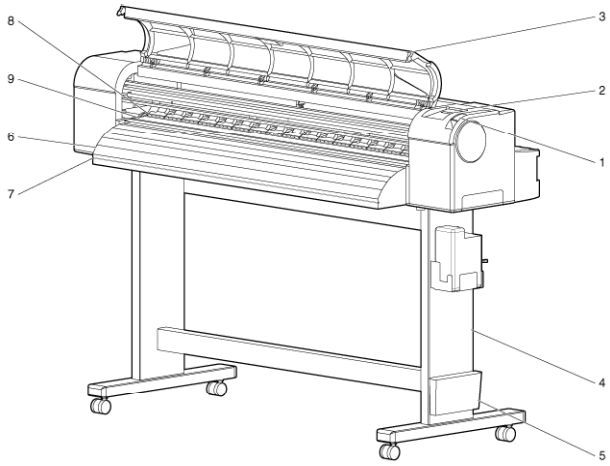
This chapter explains the features of the printer along with the names and functions of each part.

2.1 Names of parts and functions

This section explains the names and functions of each part.

Be sure to read and understand the safety warnings before handling the printer.

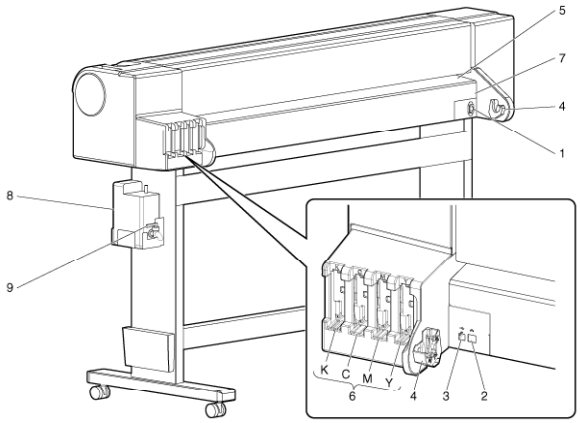
2.1.1 Front section



N°	Description	Function
1	Media loading lever	Used to release or fix the media
2	Operation panel	Operation condition setting, printer display and various function settings are performed.
3	Front cover	Used to prevent that a user comes in contact with the driving mechanism during the print operations. It is normally closed
4	Stand	To install the printer on a level floor.
5	Book holder	To store important documentation such as the User's Guide
6	Media guide	Used to feed media smoothly when the media is set or printed. The printer has also an incorporated heater (after heater) to dry ink.

N°	Description	Function
7	Media cut groove	Installed inside of the front cover. Used to cut media straight.
8	Pressure rollers	Installed inside of the front cover. Press and hold the media when printing.
9	Platen	Installed inside of the front cover. The heater (platen heater) to dry ink is installed.

2.1.2 Rear section

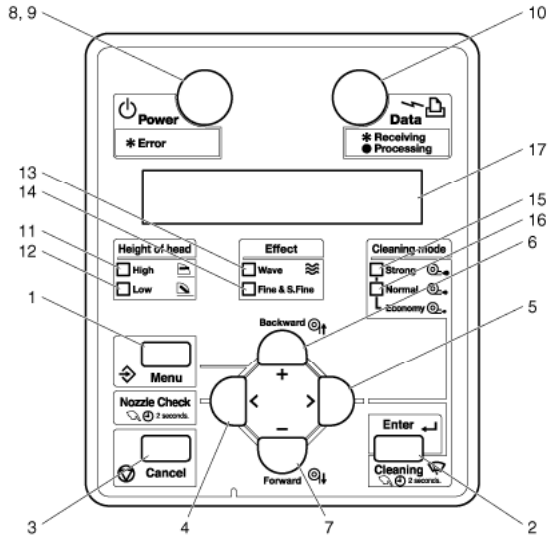


N°	Description	Function
1	AC inlet	Used to connect the power cables
2	Network interface connector	Connects a network interface cable
3	USB connector	Not used in this printer
4	Scroller receiver	Set the scroller when roll media is used.
5	Media feed slot	Used to feed media
6	Ink cassette slot	Insert the ink cassette
7	Media guide	Used to feed the media smoothly through. The heater (pre heater) to warm media is installed
8	Waste fluid tank	Used to collect waste ink discharged from the printer.
9	Waste fluid valve	Open and close when discharging the waste fluid from the waste fluid tank. the default position is closed.

2.1.3 Operation panel

Note

- **When performing menu settings from the operation panel, please refer to** Menu setup on the operation panel on page 60**.**
- **When performing various operations in the operation panel, please refer to "**Operating from the operation panel on page 90**".**



Note

- **The operation keys are assigned with different functions and names depending on the printer status (Normal or Setup menu display)**

Operation keys

No	Key	Normal	Setup menu display
1	*Menu*	Shifts to the Setup menu.	Shifts from Setup menu display to Normal.
2	*Enter*	Restarts printing during printing.	■ Shifts to the selected menu ■ The setting is determined and saved.
	Cleaning	Press and hold this key for two seconds or more to clean the print head.	—

No	Key	Normal	Setup menu display
3	*Cancel*	■ When printing: Forcefully terminates printing and deletes one file of the remaining data. ■ When receiving or analysing: Deletes data that are already received and analysed, and delete the next data.	■ Returns to the previous menu hierarchy. Changes made in the setting are discarded. ■ Shifts from Setup menu display to Normal.
4	*<*	—	The following menu changes the set value. ■ Origin menu
	Nozzle Check	Press and hold this key for two seconds or more to perform Nozzle Check printing.	—
5	*>*	Sets Cleaning Mode. The lamp of Cleaning Mode lights up in green.	Down the menu level in the directory tree.
6	*Backward*	Media is fed in the reverse direction.	—
	+	—	■ Changes to the previous item in the displayed menu. ■ The setting is changed to the forward direction. ■ The numeric value is increased during numerical input.
7	*Forward*	Media is fed in the forward direction.	—
	–	Pause to print during printing.	■ Changes to the previous item in the menu. ■ The setting is changed to the reverse direction. ■ The numeric value is decreased during numerical input.
8	*Power*	Switches the printer ON and OFF.	Switches the printer ON and OFF.

Display section

N°	Name	Color	Status	Description
9	Power lamp	Green	Lamp ON	Power ON.
			Lamp blinks	An error has occurred. Error content is displayed on the LCD.
			Lamp OFF	Power OFF.
10	Data lamp	Orange	Lamp ON	■ Analysing received data. ■ Under printing.
			Lamp blinks	Receiving data.
			Lamp OFF	Data is not received and analysed.
11	High lamp	Green	Lamp ON	The head height is set to High.
			Lamp OFF	The head height is set to Low.
12	Low lamp	Green	Lamp ON	The head height is set to Low.
			Lamp OFF	The head height is set to High.
13	Wave lamp	Green	Lamp ON	The Effect menu is set to Wave or Fuzz.
			Lamp OFF	The Effect menu is set to None.
14	Fine&S.Fine lamp	Green	Lamp ON	The Effect menu is set to Fine or Super Fine.
			Lamp OFF	■ The Effect menu is set to Wave or Fuzz. ■ When the Wave lamp is turned OFF, the Effect menu is set to None.
15	Strong lamp	Green	Lamp ON	■ Cleaning Mode is set to Strong. ■ When the Normal lamp is also turned on, Cleaning Mode is set to Economy.
			Lamp OFF	Cleaning Mode is set to Normal.

N°	Name	Color	Status	Description
16	Normal lamp	Green	Lamp ON	■ Cleaning Mode is set to Normal. ■ When the Strong lamp is also turned on, Cleaning Mode is set to Economy.
			Lamp OFF	Cleaning Mode is set to Strong.
17	LCD display section	—	—	Displays operation status of the printer or an error message.

2.2 Printer mode

2.2.1 Normal mode

Be sure to read and understand the safety warnings before handling the printer.

The printer is ready to print.

- The media is loaded and the media type is set.
- Various functions for printing are performed on the operation panel.
- The message "Ready to print" is shown.

2.2.2 Setup menu display

Various settings regarding printing are made from the operation panel.
In this mode, various setup items (IP address, etc ...) can be set on the operation panel.

Note

- **Essential settings for normal printing can be modified on the printer driver, the graphics application software of via the operation panel.**

2.2.3 Changing the printer status

Changing from Normal mode to Menu mode.

Action: Press *Menu*.
Result: The display is in "Menu mode" from now on called the "Setup Menu display".
The following message appears: "Menu1: Setup>".

Changing from Menu mode to normal mode

Action: Press *CANCEL*.
Result: The printer returns to normal mode.

Note

- **When the printer is in Menu mode and the keyboard remains untouched for 3 minutes, the printer will automatically return to Normal mode.**

Note

- **For details on Status messages, refer to "** Status messages on page 121**".**
- **For details on the Setup menu, refer to** Menu setup on the operation panel on page 60**.**

Chapter 3 Installing the unit

This chapter explains how to handle this printer.

3.1 Installation environment

3.1.1 Installation environmental conditions for installation

Note

- **Do not open the front cover during printing.**
  If the front cover is opened, printing will be interrupted.
  Printing restarts if you close the front cover. However, you are not guaranteed to have high print quality.

Be sure to read and understand the safety warnings before handling the printer.

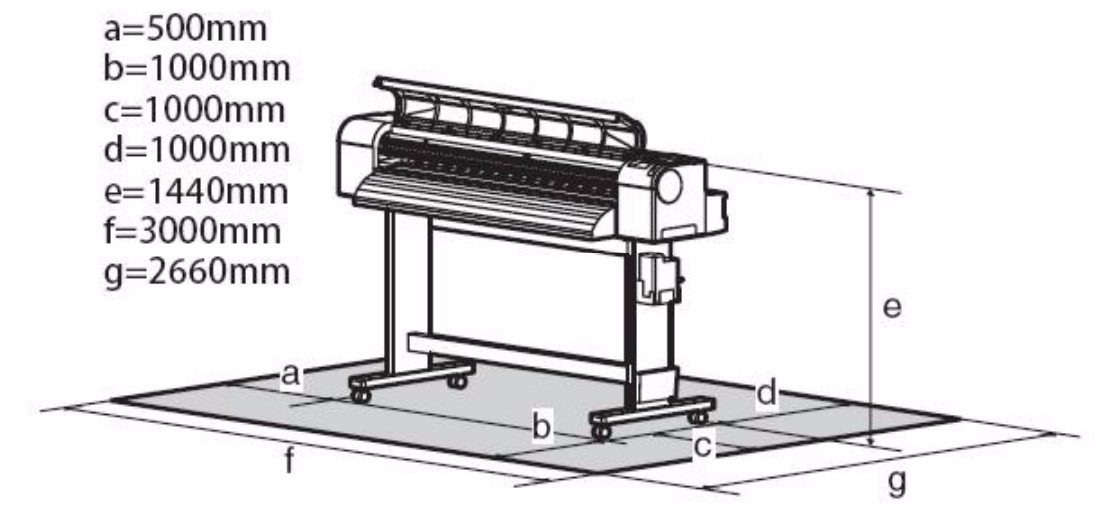
Floor strength of the installation place		More than 2940 Pa (300 kg/m²)
Power specifications	Power supply	AC 90 V - 120 V
	Frequency range	50/60Hz
	Power capacity	10A or more
Environmental conditions	Operative condition	Temperature: 20°C to 32°C Humidity: 40% to 60%, No condensation
	Guaranteed range of printing accuracy	Temperature: 20°C to 32°C Humidity: 40% to 60%
	Change rate	Temperature: Within 2°C per hour Humidity: withing 5% per hour
	Archiving environment	Temperature: -20°C to 60°C Humidity: 20% to 80% no condensation

Note

- **Concerning temperature and humidity, avoid:**
- Places where temperature or humidity may rapidly change, even though within the required conditions.
- Places that receive direct sunlight, increased illumination or direct air, for example from an air conditioner.
- **To keep the temperature and humidity constant, install this product in a location where the air condition is adjustable.**

3.1.2 Installation space

Install the printer on a levelled floor which has enough strength to support the weight of the entire machine.

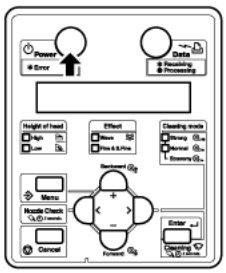


3.2 Switching the power ON/OFF

3.2.1 Switching the power ON

Step 1: Press *Power* to switch ON the printer.

- The Power lamp lights up in green.



- The printer starts initial operation.
- When the initial operation is complete, the printer enters Normal.

Note

- **If there is a problem during the initial operation, a message is displayed and the printer may stop operating.**
  In case the operation stops, refer to "Troubleshooting on page 107"

Be sure to read and understand the safety warnings before handling the printer.

3.2.2 Switching the power OFF

Step 1: Verify the following regarding the operational condition of the product.

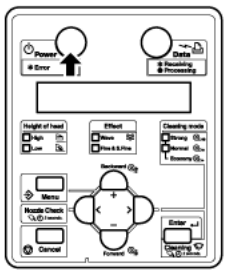
- Printing or other operations are not in progress.
- The operation panel display is Normal.
- The Low lamp lights up in green.

Step 2: Press *Power* to switch OFF the printer.

- The Power lamp switches OFF.

Note

- **If the [POWER] key is pressed or the power indication light lights up green, the power is ON.**
- **Press the key once again and switch OFF the power.**



- "Power OFF" is displayed.

Note

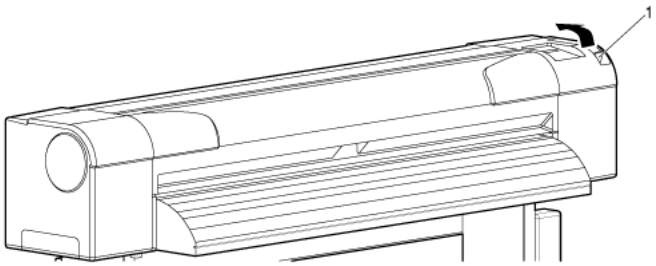
- **If the head height is set to High, "Change Head Gap Low" is displayed and the procedure to switch the power OFF stops.**
  To restart the procedure, return the head height to Low.

- All the lamps and the LCD monitor are switched OFF.
- The printer automatically switches the power OFF.

Note

- **If there is a problem during the power OFF operation, a message is displayed and the printer may stop operating.**
  In case the operation stops, refer to "Troubleshooting on page 107".
- **After switching OFF the printer, wait for 10 seconds or longer to switch it ON again.**

Step 3: When not using the printer for a long period, push the media loading lever to the back.



N°	Description
1	Media loading lever

3.3 Replacing ink cassettes

3.3.1 Replacement time

- When "[****] InkNearEnd" is displayed.
  - This message is displayed when there is a small amount of ink remaining in the ink cassette.
  - The alarm buzzer sounds.
    To stop the buzzer, press *ENTER*.
  - Replace with the new ink cassette.
- When "[****]InkEnd" is displayed.
  - This message e is displayed when there is no ink remaining in the ink cassette.
  - The alarm buzzer sounds.
    To stop the buzzer, press *ENTER*.
  - Immediately replace the empty cassette with a one.

Note

- **[****] in the messages of ink cassette replacement indicates the colour that is almost empty or runs out, using the following characters.**
  - K: Black
  - C: Cyan
  - M: Magenta
  - Y: Yellow
- **Do not insert or remove the ink cassette except at the time of replacement. Inserting or removing the ink cassette mixes air into the ink tube, and failures such as nozzle detachment may occur.**
- **If "Ink End" is displayed, you cannot print until inserting the new ink cassette.**
- **If there is no cassette for replacement at hand, leave the empty cassette inserted in the printer. leaving the printer with the ink cassette removed may cause the print head to clog.**

3.3.2 Replacement steps

Note

- **Do not shake ink cassettes. Doing so may cause ink leakage**
- **Do not disassemble the ink cassette. A disassembled ink cassette cannot be used.**
- **When an ink cassette is moved from a cold place to a warm place, keep the ink cassette unused for 3 hours or more in the printing environment.**
- **Do not refill the ink cassettes.**
  Doing so may result in incorrect printing.
- **Insert or remove the ink cassette at the time of replacement only.**
  Inserting or removing ink cassettes except at the time of replacement may result in incorrect printing.

Note

- **Do not replace ink cassettes when the printer is switched OFF. Doing so may result in incorrect detection of the remaining ink and result in abnormal printing behaviour.**

Note

- **Put used ink cassettes in a vinyl bag or a bag used for this kind of waste. Disposal of an ink cassette has to be done in compliance with the regulations and instructions of the local authorities.**

Note

- **Open the ink cassette solvent resistant blister just before attaching the ink cassette into the cassette slot. Leaving the ink cassette open for a long time may result in an abnormal print.**
- **Replace the ink cassette within 6 months after installing it into the printer.**
- **Insert or remove the ink cassette not more than 10 times. This to prevent that the smart chip or its reader would be worn out and malfunction in this way. If inserted or removed more than 10 times the ink cassette could malfunction even if there is some ink remaining.**

Note

- **The printer resumes printing when you have replaced (and) ink cassette(s) after an ink end occurred during printing.**

Step 1: Verify that the printer has been switched ON.

Step 2: Remove the empty ink cassette from the ink cassette slot.

Step 3: Unpack the next ink cassette and insert it into the cassette slot.

Step 4: Verify that the printer returns to the Normal mode.

3.4 Disposal of waste fluids

3.4.1 Disposal period

Dispose of waste fluids in the following cases:

- When the waste fluid tank is more than half full.
- When "Waste Ink Tank Full" is displayed.

3.4.2 Disposal method

Important

- **The waste fluid from the printer is industrial waste.**
  Proper waste fluid disposal according to industrial waste disposal laws and ordinances of you local government is required.
  Consign disposal of waste fluids to a specialized processor.

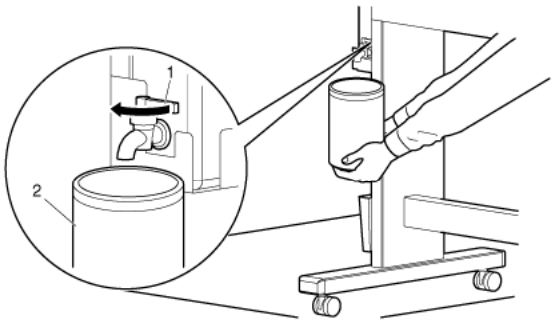
Step 1: Ready an empty container such as a supply waste fluid bottle, to contain the waste fluid.

Step 2: Lay a protective material on the floor under the waste fluid tank.

Step 3: Open the waste fluid valve, and transfer the waste fluid to the container.

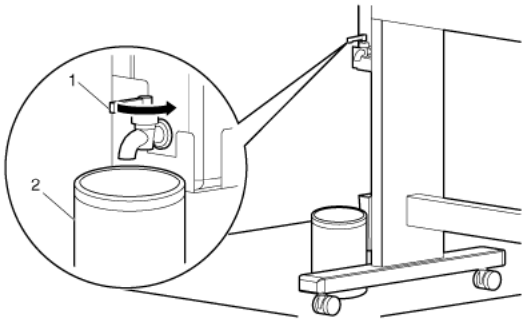
Note

- **When transferring the waste fluid to the empty container, the waste fluid may splash.**
- **When transferring the waste fluid to the empty container, put the container underneath and close the waste fluid valve afterwards.**



N°	Description
1	Waste fluid valve
2	Empty container

Step 4: After Transferring the waste fluid to the empty container, close the waste fluid valve securely.



N°	Description
1	Waste fluid valve

Step 5: Wipe the opening of the waste fluid valve with a cloth, etc.

Step 6: Dispose of the waste fluid as an industrial waste product

3.5 Transfer and transportation

3.5.1 Transferring the printer

When using the dedicated stand, transfer the printer according to the procedure below.

Be sure to read and understand the safety warnings before handling the printer.

Pre-transfer steps

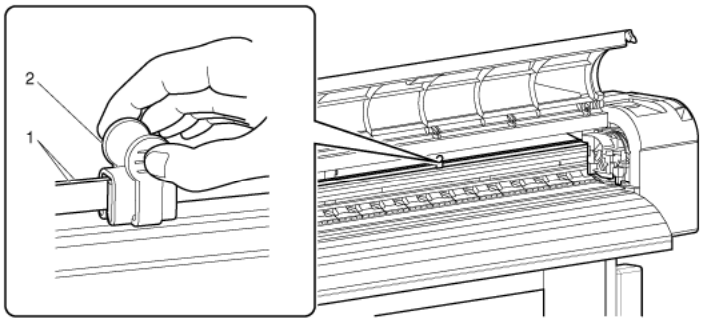
Step 1: Dispose of waste fluid
Refer to Disposal of waste fluids on page 32.

Step 2: Make sure that the printer is switched OFF.

Step 3: Check that the butterfly bolts (2) attaching the stand and the printer are not loosen.

Step 4: Check that the printer head is in the rightmost position

Step 5: Bind the CR belt in the centre section of the printer by fastening the CR belt clip around it.



N°	Description
1	CR belt
2	CR belt clip

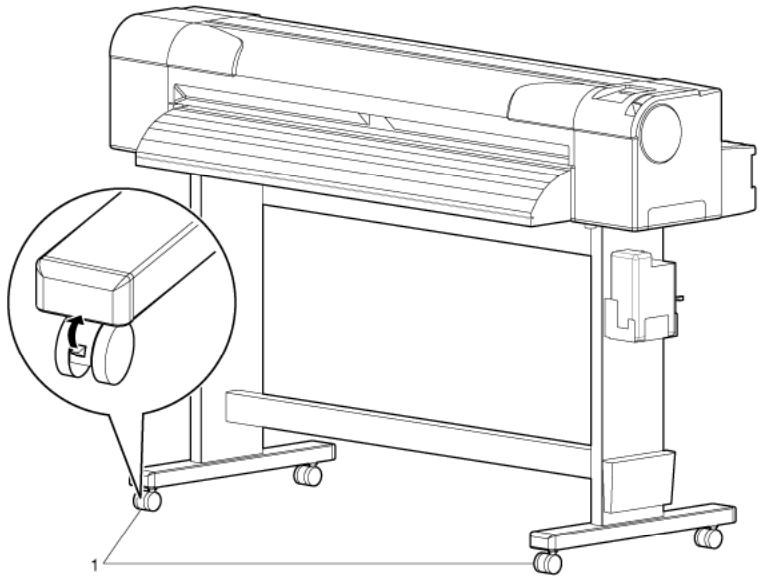
Step 6: Remove the scroller.

Step 7: Remove all the cables, such as the power cable.

Step 8: Release the lock of the caster and transfer it.

Note

- **The casters supplied with the dedicated stand are manufactured for little movement in flat indoor areas, not for transporting equipment.**
  When moving the printer outdoors in places with big step differences, move the stand and the printer separately.



N°	Description
1	Caster

Reinstalling the printer

Step 1: After moving the printer, follow the procedure below to set it ready for use.

Step 2: Select a suitable place for installation
Refer to "Installation environment on page 25.

Step 3: Move and install the printer to the location.

Step 4: Check the butterfly bolts (2) fixing the stand and the printer are well fixed.

Step 5: Attach all needed cables.

Step 6: Perform a nozzle check, and then confirm that there is no clogging in the print head.
Refer to "Nozzle Check on page 54"

Step 7: Perform Alignment.

3.5.2 Transporting the printer

Pre-transportation procedure

Step 1: Switch ON the unit

Step 2: Confirm that the printer functions correctly.

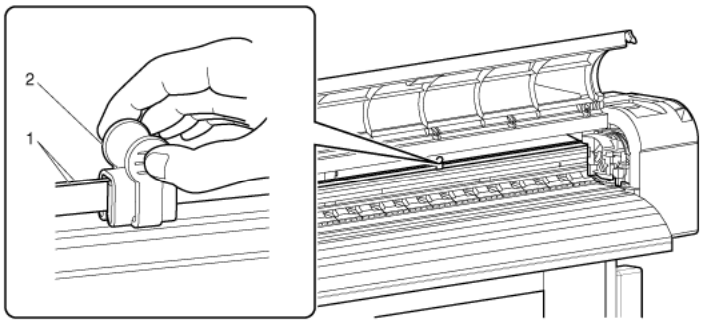
Step 3: Remove all ink cassettes.

Step 4: Switch OFF the printer.

Step 5: Dispose of waste fluid
Refer to Disposal of waste fluids on page 32.

Step 6: Check that the printer head is in the rightmost position

Step 7: Bind the CR belt in the centre section of the printer by fastening the CR belt clip around it.



N°	Description
1	CR belt
2	CR belt clip

Step 8: Remove the scroller.

Step 9: Remove all the cables, such as the power cable.

Step 10: Remove the printer from the stand.

Step 11: Repack the printer.

Post-transportation procedure

Step 1: Perform unpacking, assembling and setting the printer as described in the installation guide.

Chapter 4 Handling the printer

4.1 General info on usable media

4.1.1 Media compatibility

Be sure to read and understand the safety warnings before handling the printer.t

The Mutoh ValueJet 1304 Eco-Solvent Ultra printer offers a wide media compatibility with both uncoated an coated media.

The appropriate media needs to be selected in accordance with the application type. Mutoh offers a selection of dedicated coated and uncoated Eco-Solvent media.

Next to this, a wide range of media from known media brands in the market have been tested and found compatible with the ValueJet 1304 printer.

Note

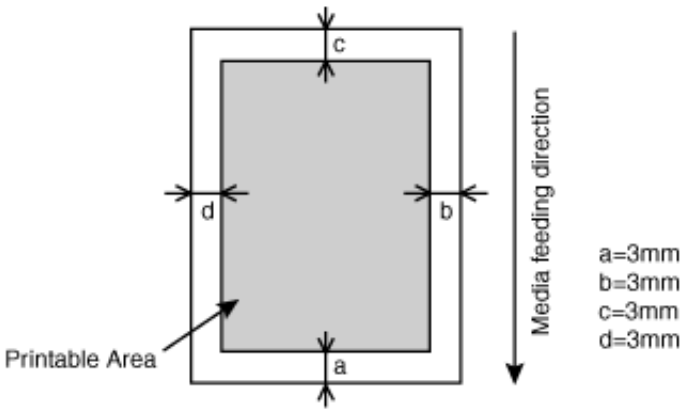
- **For details on the recommended media, visit** www.mutoh.eu **or contact your locale Mutoh dealer.**
- **If printer failures or malfunctions occur by using non compatible media:**
  - The printer will not be covered by the warranty and repair expenses will have to be paid by the customer.
  - for details refer to the "Periodical maintenance on page 95" and "Troubleshooting on page 107".
- **If repair is necessary, contact your local Mutoh dealer.**

Note

- **When tested and compatible media is used, the print quality is set according to each media type.**
- **When printing on non compatible**
- **or non-tested media:**
  - Refer to the media specifications of the media supplier for information on the media type or appropriate settings for this printer.

4.1.2 Printing area

The printable area of the ValueJet 1304 is as follows:



4.1.3 Notes on handling media

Note

- **Use compatible media under an appropriate environment.**
  The appropriate temperature and humidity ranges for printing are:
  - Temperature: 22°C to 30°C with a change rate of 2°C per hour
  - Humidity: 40% to 60% with a change rate of 5% per hour.
- **Do not use folded or torn media.**
- **The size of media changes according to temperature and humidity variations in the print environment. Therefore, place the media minimum 30 minutes in the print environment before use, to let it acclimatize to the print environment.**
- **Printing on media without having it acclimatized to the printing environment might cause media jams and bad print quality, caused by media expansion or contraction.**
- **Media has a printable side and a non-printable side. Printing on the non-print side can cause blurs and blots.**
- **Always handle media with dry and clean hands to avoid bad print quality.**
- **When the printer will be unused for more than 24 hours, remove the media to prevent media floating, media jams and degradation of the print quality.**
- **Avoid using media in cold places and dry places, especially when printing formal documents.**
- **Always store the media in its original packing material.**
- **Do not throw away the individual box and bag. Use them to store media.**

4.1.4 Notes on storing media

Note

- **Avoid storing media in rooms with high temperature and high humidity.**
- **Avoid direct sunlight on stored media.**
- **Always repack sheet media in its original packing and store it in a horizontal position.**
- **After removing the unused roll media from the scroller, wind it properly, wrap it in an individual bag and store it in an individual box.**
- **Keep the media dry.**

4.2 Handling and installing media

Note

- **Refer to "General info on usable media on page 37" for details on media handling.**
- **It is recommended to use tested and compatible media for this printer.**

4.2.1 Installing roll media

This section explains how to load roll media.
Use the exclusive scroller included with this printer for loading roll media.

Note

- **The following roll media can be set on the scroller included with this printer.**
- **Media tube diameter: three inches, outside diameter of media: 150 mm or less, weight: 19 kg or less**

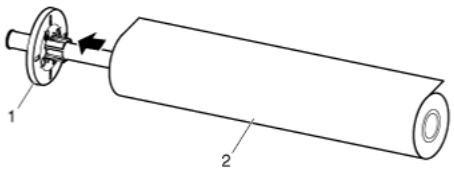
Follow the procedure below to load roll media.

Caution

- **Load roll media on an even surface such as a desk.**
  If you load roll media with the scroller standing vertical, there is a possibility that the scroller might get damaged.

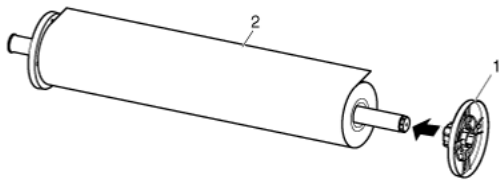
Step 1: Load roll media to the scroller so that it is rolled in an anti clockwise direction when viewed from the fixed flange.

Step 2: Push the roll media until its core hits the right edge of the fixed flange.



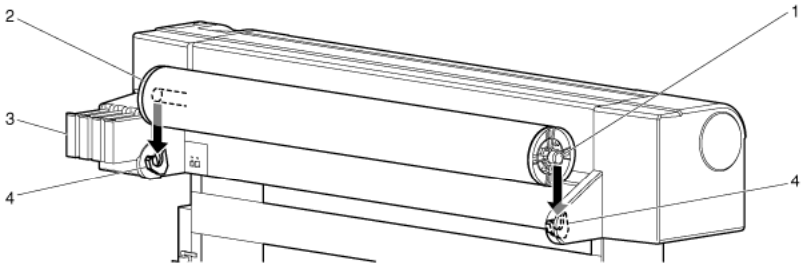
N°	Description
1	Fixed flange
2	Roll media

Step 3: Attach the movable flange firmly to the roll media core.



N°	Description
1	Movable flange
2	Roll media

Step 4: Set the scroller to the scroller receiver facing the fixed flange to the side of the ink cartridge slot.



N°	Description
1	Scroller
2	Fixed flange
3	Ink cassette slot
4	scroller receiver

4.2.2 Setting roll media

This section explains how to set roll media.

Step 1: Switch ON the unit.

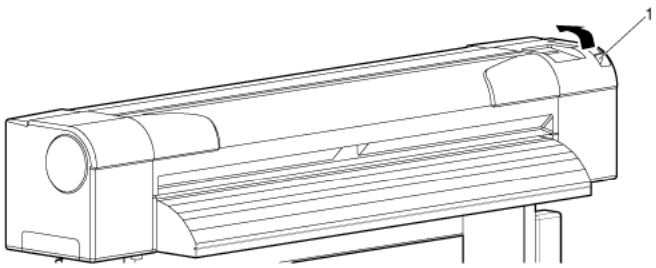
Caution

- **Do not operate the media loading lever during initial operation. The print head portion could touch the pressurizing roller portion, and cause a malfunction**

  - The printer starts the initializing operation.
  - "Media End" is displayed.

Step 2: Push the media loading lever to the back.

- "Lever Up" is displayed.

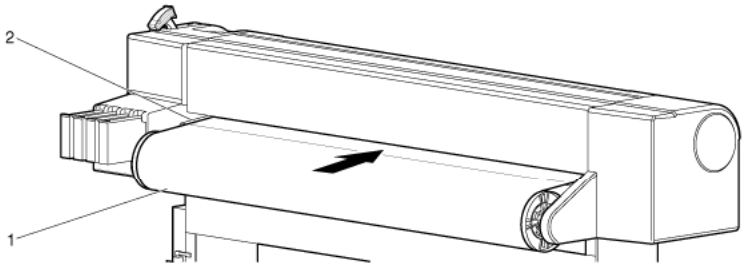


N°	Description
1	Media loading lever

Step 3: Feed the roll media into the media feed slot.

Note

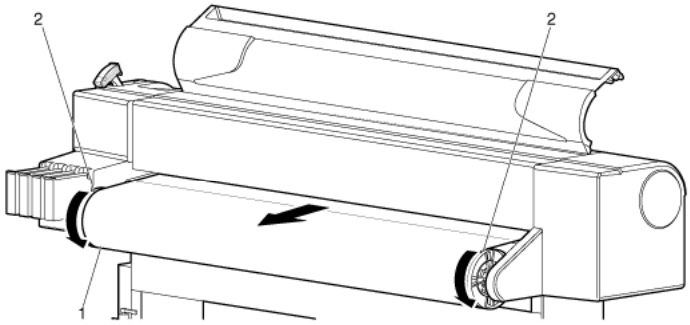
- **If the roll media end gets loose, roll up the media again and load it.**



N°	Description
1	Roll media
2	Media feed slot

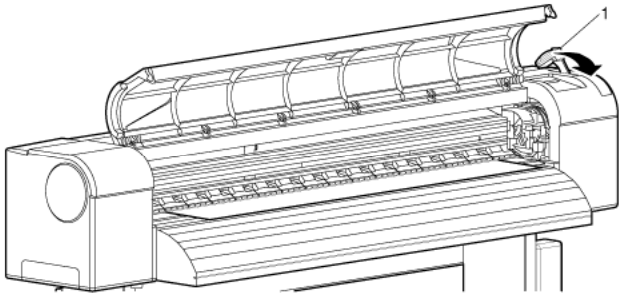
Step 4: Open the front cover, and pull out the roll media.

Step 5: Holding the front edge of the roll media, roll it back using the scroller to remove a bend and slant.



N°	Description
1	Roll media
2	Scroller

Step 6: Pull the media loading lever forward.



N°	Description
1	Media loading lever

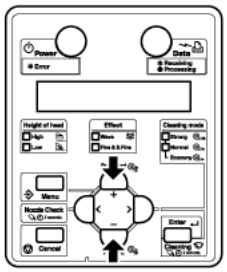
Note

- **When loading the new roll media, cut the front edge of the media if it is not straight.**
  Refer to " Cutting media on page 91**".**

Step 7: Close the front cover.

- The Media type setup menu is displayed.

Step 8: Press + or – to select the type of the loaded media.



Step 9: Press *Enter*.

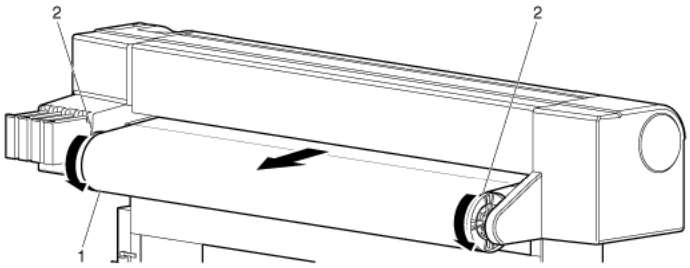
- The media type is set.
- "Media Initial" is displayed and media initial operation starts.

Note

- **If the following operations are performed in the media type setup menu, the printer starts media initial operation without specifying a media type.**
- **Pressing** ***Cancel*****.**
- **No keys are pressed for 10 seconds.**

- After media initial operation is complete, "Ready to Print" is displayed and the display shifts to Normal.

Step 10: Wind the roll media around the scroller to remove slack.



N°	Description
1	Roll media
2	Scroller

- This completes media loading.

4.2.3 Head height adjustment

When used?

Use the head height adjustment feature to prevent the print head from touching the media, when printing at high speeds or when using strongly curved media.

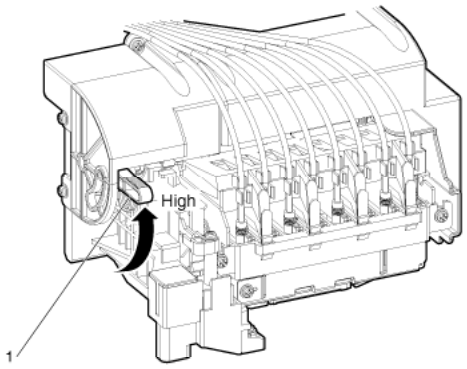
Note

- **If the head height adjustment lever is raised, high print quality will not be guaranteed.**
- **Do not open the front cover nor change the head height during printing. If the head height is changed, the head alignment will be changed and high print quality will not be guaranteed.**

Procedure

Step 1: Open the front cover.

Step 2: Change the head height by moving the head height adjustment lever (orange).



N°	Description
1	Head height adjustment lever

- The High lamp lights up in green.

Step 3: Close the front cover.

4.2.4 Media feed compensation

After every printed swat, the media is fed a certain distance. Depending on the kind of media (weight, backing) another media feed compensation has to be set. This to avoid the following phenomenon:

- Printed swats overlap
- White lines between every swat.

In such cases, follow the procedure below and adjust the media feed compensation value.

Step 1: Display the Media feed compensation menu.

- Press *Menu*
  - "Menu1: Setup>] is displayed.
  - The operation panel shifts to the Setup menu display.
- Press >.
  - "Set1: MediaType" is displayed.
- Press *ENTER*.
  - "Media: Type1" is displayed.
- Press + or - to select the media type to use.
- Press *ENTER*.
  - "**>1: Print Mode" is displayed.
- Press + or - to select "**2: PF Adjust".
- Press >.
  - "PF1: Initial Print" is displayed.
  - Proceed to Media feed compensation menu.

Step 2: Perform an initial adjustment print.

- Press *ENTER*.
  - "FeedLenght: 250mm" is displayed.

Note

- **The length of media that is fed for the initial adjustment print is normally set to 250 mm.**
- **If you increase the feeding length, the accuracy of the media feed compensation improves.**
  To change the feeding length, press the [+] or [-] key and change the set value.

- Press *ENTER*.
  - "Printing" is displayed.
  - Start Initial adjustment printing.

N°	Description
1	Feed length
2	Media feeding direction

  - When the initial adjustment printing is complete, the printer enters the Normal status.
- After the initial adjustment printing, cut the media.
  Refer to "Cutting media on page 91"

Step 3: Measure the distance between the two pluses in the initial adjustment print using a ruler.

Step 4: Sets up Initial Adjust Change.

- Press + or – to select "PF2: Initial Change".
- Press *Enter*.
  - "Init.: 250.0/250 mm" is displayed.
- Press + or – and enter the measured value in step 3.
- Press *Enter*.
  - The initial adjustment value is saved.
  - "PF2: Initial Change" is displayed.

Step 5: Performs confirm print.

- Press + or – to select "PF3: Confirm Print".
- Press *Enter*.
  - "Feed Length: 250 mm" is displayed.

Note

- **The length of media that is fed for the initial adjustment print is normally set to 250 mm.**
- **If you increase the feeding length, the accuracy of the media feed compensation improves.**
  To change the feeding length, press the [+] or [-] key and change the set value.

- Press *ENTER*.
  - "Printing" is displayed.
  - Start Confirmation adjustment printing.

N°	Description
1	Feed length
2	Media feeding direction

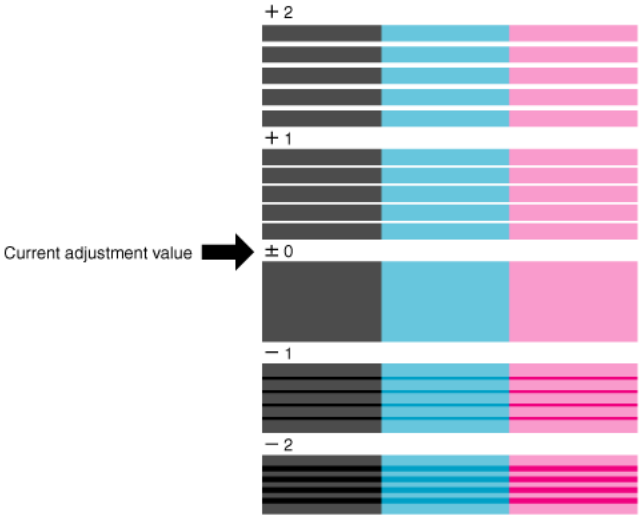
  - When the Confirm Print is complete, the printer enters Normal.
- After the confirmation adjustment printing, cut the media.
  Refer to "Cutting media on page 91"

Step 6: Measure the distance between the two pluses in the confirmation adjustment print using a ruler. Then, confirm that the distance matches the feeding length when printing.

- If the distance does not match the feeding length, follow the procedure from Step 1 to Step 5 and readjust.
- If the distance matches the feeding length, proceed to step 7.

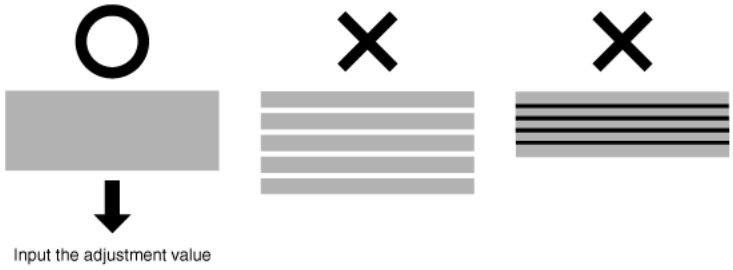
Step 7: Perform Micro adjustment printing.

- Display the Media feed compensation menu in the same way as in step 1.
- Press + or – to select "PF4:Micro Print".
- Press *Enter*.
  - "Printing" is displayed.
  - Start Micro adjustment printing.



- After the micro adjustment printing is completed, "PF4:Micro Print" is displayed.

Step 8: Refer to the illustrations below and check the printing result.



Step 9: Sets up Micro Adjustment Change.

- Press + or – to select "PF5:Micro Change".
- Press *Enter*.
  - "Micro: 0pulse" is displayed.
- Press + or – and enter the micro adjustment value according to the printing result in Step 7.
- Press *Enter*.
  - The micro adjustment value is saved.
  - "PF5:Micro Change" is displayed.
- Press *Cancel* several times.
  - The operation panel returns to Normal.
  - The adjustment of media feed compensation value is complete.

4.2.5 Replacing roll media

(1) Replacement time

Replace the roll media if...

...The roll media runs out

- The operation panel displays "End of roll".
- If the media runs out during printing, the printer will stop operating.

...You want to change the media type.

(2) Replacement steps

To replace roll media, follow the procedure below. Note that the procedure consists of 2 parts.

Caution

- **Be careful that your fingers are not caught between the front cover and the printer if you open or close the front cover.**

Installing the new roll media

Note

- **For loading roll media, refer to** Handling and installing media on page 40**.**
- **For roll media which you don't use any longer, store it according to** General info on usable media on page 39

4.3 Test print

4.3.1 Overview and functions of the test prints

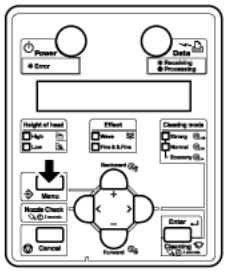
Testplot	Function	Action to be performed when needed
NozzleCheck	To check the head nozzles	When performing a head cleaning
Mode Print	To check the print conditions	When changing the print conditions
Set list	To check the current setup of the printer	When changing the setup
All Set List	To make an overview of the complete setup list	
Palette	To compare outputs colours with printing colours	Check colour mode

4.3.2 Performing a Testprint

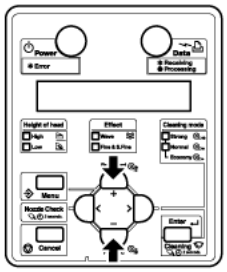
Step 1: Verify that the printer has been switched ON and that media more than A3 size has been loaded.

Step 2: Verify that the printer is in Normal mode.

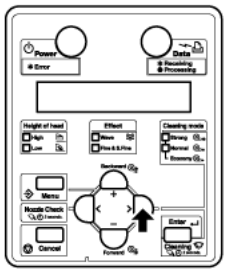
- Press *menu*.



  - "Menu 1: Setup>" is displayed.
  - The operation panel shifts to the Setup menu display.
- Press + or - to select "Menu 2: TestPrint".



- Press >.



  - "Test1: NozzleCheck" is displayed.
  - The display shifts to the Test print menu.

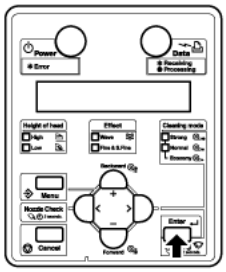
Step 3: Press + or - to select a testprint menu.

- NozzleCheck
- Modeprint
- SetList
- AllSetList
- Palette

Note

- **When "Banner 1" or "Banner 2" is set in the print mode menu, "PalettePrint" is not displayed in the TestPrint menu.**

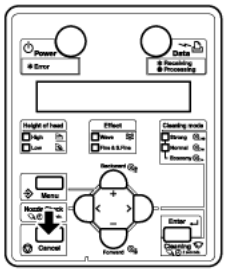
Step 4: Press *ENTER*.



- Start performing Test print for the selected item.

Step 5: Repeat step 4 till 5 when performing test print for other items.

Step 6: Press *Cancel* to exit from the test print.



4.3.3 Nozzle Check

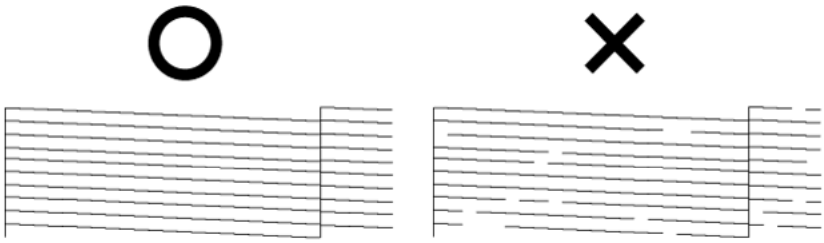
Used to check whether there are any head clogging, missing nozzles or misfiring nozzles.

Note

- **If the nozzle check result indicates that the checked points are blurred or missing, clean the head. Refer to** Open the front cover. on page 98 **for more information.**
  Perform the nozzle check once again after the head has been cleaned.

Note

- **For the printing procedure, refer to** Test print on page 51



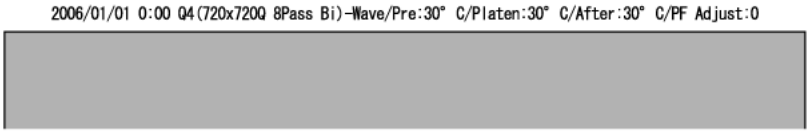
4.3.4 Mode Print

Used to confirm the following printing conditions:

- Printmode
- Pre heater set temperature
- Fixer (Platen) heater set temperature
- Drier heater Set temperature
- Adjustment value

Note

- **For the printing procedure, refer to** Test print on page 51

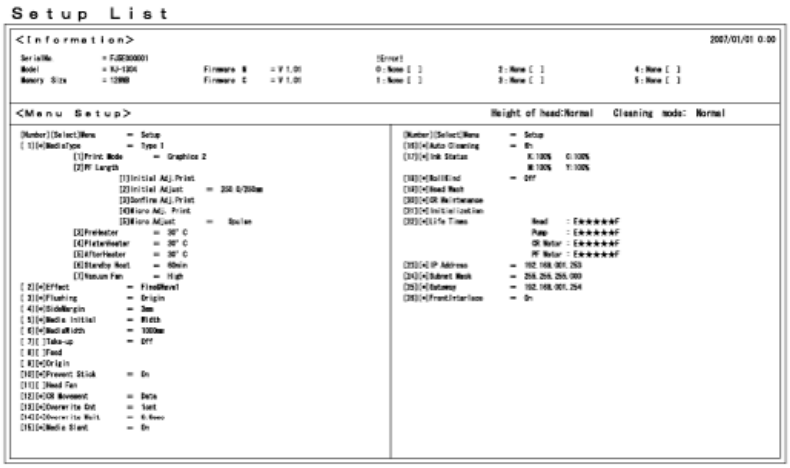


4.3.5 Setup print

Used to check the current setup of the printer.

Note

- **User media and print mode lists are printed only when "ALLSetList" is selected.**

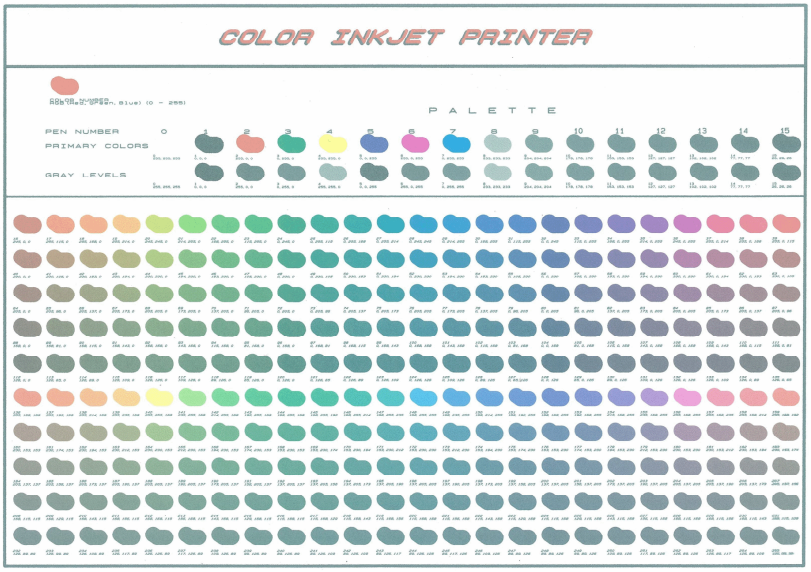

Setup List
<Information>
<Menu Setup>
<Media Type List>

4.3.6 Palette print

Used to compare pen colours used on the computer to the printing colours.

Note

- **When "Banner 1" or "Banner2" is set in the Print Mode menu, "PalettePrint" is not displayed on the testprint menu.**
- **For the printing procedure, refer to**Test print on page 51**.**



4.4 Adjust print

Used to align the print head.

Note

- **This printer has been adjusted for optimum print quality before shipment at the** Mutoh **factory.**
- **Align the print head when the print quality decreases after the installation environment or the media has been changed.**

Align the print head as described in the following procedure.

Step 1: Switch On the printer and load the roll media.

Step 2: Confirm that the printer functions normally.

Step 3: Display the printing mode menu.

- Press *Menu*.
  - "Menu1:Setup>" is displayed.
  - The operation panel shifts to the Setup menu display.
- Press >.
  - "Set1: MediaType" is displayed.
- Press *Enter*.
  - "Media: Type 1" is displayed.
- Press + or – to select the media type to use.
- Press *Enter*.
  - "**>1: Print Mode" is displayed.
- Press *Enter*.
  - "Mode: Graphics 2 – > " is displayed.
  - The display shifts to the Printing mode menu.

Step 4: Select the printing mode that you want to use.

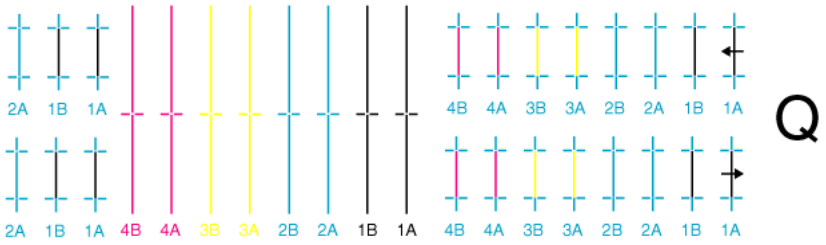
- Press + or – to select the printing mode to use.
- Press *Cancel* several times.
  - The operation panel returns to Normal.

Step 5: Display the Adjust Print menu.

- Press *Menu*.
  - "Menu 1: Setup>" is displayed.
  - The operation panel shifts to the Setup menu display.
- Press + or – to select "Menu3: Adjust Print".
- Press >.
  - "Adj.1: Confirm" is displayed.
  - The display enters the Adjust Print menu.
- Press *Enter*.
  - A confirmation pattern for quality adjustment is printed.
  - After the confirmation pattern is printed, the operation panel shifts to Normal.

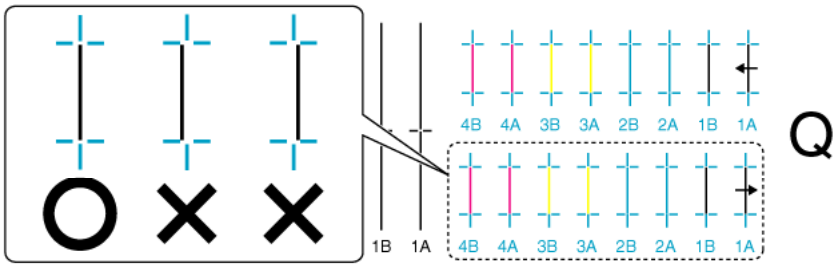
Step 6: Confirm that the confirmation pattern printing result is as follows.

- A confirmation pattern for quality adjustment is printed.



- After the confirmation pattern is printed, the operation panel shifts to Normal.

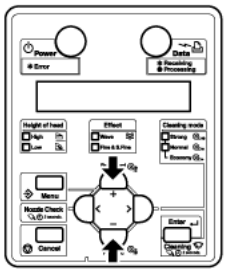
Step 7: Confirm that the confirmation pattern printing result is as follows.



- When the printing result is O:
  - You do not need to perform another alignment.
- When the printing result is X:
  - Perform the alignment again.

Step 8: Register a set value for Bi-D quality (two-way printing/quality priority mode).

- Display the Adjust Print menu in the same way as in step 5.
- Press + or – to select "Adj.5: Bi-D Quality".



- Press *Enter*.
  - Start Bi-D Quality pattern printing.
- Check three print samples that printed with Bi-D Quality pattern, and select the number that is not out of alignment. "4" is selected in the next printing sample.

- Press + or – to enter the number if your selection.
- Press *Enter*.
  - The set value for Bi-D Quality is registered.
  - The operation panel returns to Normal.

Step 9: Register the setting for Bi-D Normal (two-way printing/normal mode) in the same way as in step 8.

- The procedure for Alignment is complete.

4.5 Menu setup on the operation panel

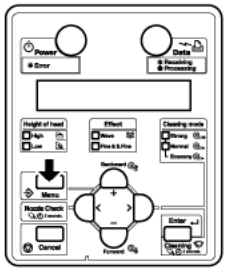
4.5.1 Menu setup procedure

Be sure to read and understand the safety warnings before handling the printer.

Follow the procedure below to configure each setup menu.

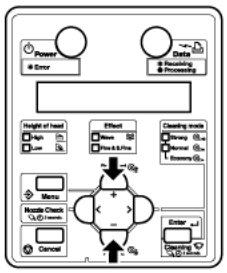
Step 1: Confirm that the operation panel is Normal mode.

Step 2: Press *Menu*.



- "Menu 1: Setup>" is displayed.
- The operation panel shifts to the Setup menu display.

Step 3: Press + or – to select a setup item and press *Enter*.



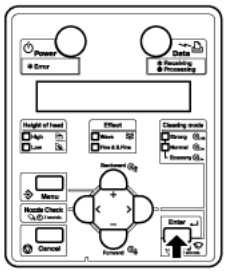
- The settings will be confirmed.
- When setup items have a submenu, the display shifts to the next menu.

Note

- **When a setup item has a submenu, ">" is displayed on the right end of the LCD monitor of the operation panel.**

Step 4: The setting in the blinking part on the LCD monitor of the operation panel can be changed.
Press + or – to change the setting.

Step 5: To save the changed setting, press *Enter*.

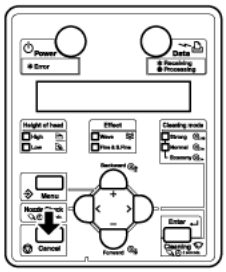


- The setting is saved and the next setup item is displayed.

Note

- **If you press** *Cancel*, *+* **or** – **without pressing** *Enter* **after changing a setting, the change will not be saved.**

Step 6: Press *Cancel* to exit from the setup.



- The previous setup menu is displayed.
- When the main menu is displayed, the screen turns to Normal.

4.5.2 Panel setup menu overview

This sub-section explains the Panel setup menu of the printer.
There are the following items in the Panel setup menu.

Setup item	Description
Setup menu	Various settings of the printer are configured.
Test Print menu	Performs nozzle check of the print head and setup list.
Adjust Print menu	Print and adjust test patterns for Alignment.
Cleaning menu	Perform Head cleaning.
Selection menu	Sets up the contents of the Setup menu.
Version menu	Displays the versions of the firmware.
Sleep mode menu	Sleep mode settings are configured.

4.6 Panel Setup Menu

In the table below you will find the complete menu structure and its functions.

Setup item	Description
MediaType	Set up the media type for printing
Effect	Set up the effect menu
Flushing	Set up the flushing operation while printing
Side Margin	Set up the right and left margin when printing
Media initial	Set up whether the media width and edge are detected when initializing the media.
Media Width/ MediaWidth Check	Specifies the media width between the loading mark and the left end if media detection is not performed during media initialization. Displays the detected media width if media detection is performed during media initialization.
Take-up	Set to on when using a take-up system
Origin	Set the start position of the printing data
Prev. Stick	Set up to prevent media from sticking when printing.
MediaCut	Sets the media cutting operation after finishing printing.
CR movement	Set up the distance to move the print head while printing.
OverwriteCnt	Set up the Overwrite Cnt per swath.
Overwrite Wait	Set up the waiting time while overwrite printing
Slant Check	Set up the slanting detecting between two consecutive print jobs.
Auto Cleaning	Set up the auto cleaning time while printing.
Ink Status	Display the remaining ink level of the ink cassette that was installed into the ink cassette slot
Roll Length	Set up the roll media length.
Head Wash	Perform a head wash
CR Maint.	Unlocks the carriage from the home position in order to be able to clean the wiper.
Initialization	The parameter values of the printer are restored to their factory defaults.
Life Times	Display the operational life time of each part
IP Address	Set the IP address of the printer
Subnet Mask	Set the subnet mask of the printer
Gateway	Set the Gateway.
Front Interlace	Set the front treatment function.
Temporary	The settings of "OFF" or "ALL OFF" in the Selection menu are displayed in the setup menu temporary.
---	*CANCEL*: shifts to the previous hierarchy.

4.6.1 MediaType menu

Settings for the media type to print are configured.

Setup item	Settings	Description
Media	Type 1	Settings for the media type to print are configured. It is possible to set 30 different user settings as "Type 1" to "Type30" for printing. Refer to: User media menu on page 63
	Type 2	
	...	
	Type 29	
	Type 30	
	---	■ *CANCEL*: saves the settings and shifts to the previous menu Refer to Panel setup menu overview on page 61

User media menu

Note

- **If non-compatible media is used, the following problems may occur:**
  - Media detection error
  - Slant, snag and wrinkle of media
  - Media jams
  - Optimum printing quality cannot be obtained due to blots, blurs and dirt of ink.
  - End detection of roll media cannot be performed, etc.
- **The problems caused by the use of non-compatible media will not be covered by the warranty and repair expenses will be paid by the customer. For details, contact you local** Mutoh **dealer.**

Setup item	Settings	Description
Type 1 to 30	Print Mode	Set up the print mode according to the used print data or print speed. ■ *ENTER*: shifts to the next hierarchy. ■ Refer to Print mode menu on page 65
	PF Adjust	Various settings on the media feed compensation can be set. ■ >: shifts to the next hierarchy. ■ Refer to Dist.Adj menu on page 66
	Pre Heater	Set up the Pre Heater temperature. ■ *ENTER*: shifts to the next hierarchy. ■ Refer to Pre heater menu on page 68
	Platen Heater	Set up the Platen Heater temperature. ■ *ENTER*: shifts to the next hierarchy. ■ Refer to Platen heater menu on page 69
	After Heater	Set up the after Heater temperature. ■ *ENTER*: shifts to the next hierarchy. ■ Refer to Drier menu on page 70
	StandbyHeating	Set up whether the heater is preheated while in standby mode. ■ *ENTER*: shifts to the next hierarchy. ■ Refer to StandbyHeating menu on page 70
	Vacuum Fan	Set up the vacuum fan operation. ■ *ENTER*: shifts to the next hierarchy. ■ Refer to Vacuum Fan menu on page 71
	---	■ *CANCEL*: saves the settings and shifts to the previous menu

Print mode menu

Settings for print quality (print mode) are set according to the usage of print data or print speed.

Setup item	Settings	Description
Mode	Quality 1	Sets up the print mode ■ Quality 1 to 4: ■ Set this to perform high quality printing. ■ Graphics 1 to 2: ■ Set this to perform standard printing ■ Banner 1 to 4: ■ Set this to perform high speed printing.
	Quality 2	
	Quality 3	
	Quality 4	
	Graphics 1	
	Graphics 2	
	Banner 1	
	Banner 2	
	Banner 3	
	Banner 4	
	---	■ *ENTER*: saves the setting and shifts to the previous menu. ■ *CANCEL*: cancels the setting and shifts to the previous menu.

Details of print mode

The settings for print quality registered in each print mode are:

Print mode	Resolution	Print speed	Pass	Direction
Quality 1	1440x1440 dpi	Q (High quality)	16 Times	Uni
Quality 2	1440x720 dpi	Q (High quality)	8 Times	Uni
Quality 3	720x720 dpi	Q (High quality)	8 Times	Uni
Quality 4	720x720 dpi	Q (High quality)	8 Times	Bi
Graphics 1	720x720 dpi	N (normal)	8 Times	Uni
Graphics 2	720x720 dpi	N (normal)	8 Times	Bi
Banner 1	540x720 dpi	N (normal)	6 Times	Uni
Banner 2	540x720 dpi	N (normal)	6 Times	Bi
Banner 3	720x720 dpi	Q (High quality)	4 Times	Uni
Banner 4	720x720 dpi	N (normal)	4 Times	Bi

Dist.Adj menu

Setup item	Settings	Description
PF	Initial print	Performs initial adjust print ■ *ENTER*: shifts to the sub menu Refer to: Initial print menu on page 66
	Initial Change	Set up initial adjust change ■ *ENTER*: shifts to the sub menu Refer to: Initial change menu on page 67
	Confirm print	Performs confirm print ■ *ENTER*: shifts to the sub menu Refer to: Confirm Print menu on page 67
	Micro print	Performs a micro adjustment print ■ *ENTER*: shifts to the sub menu Refer to: Micro Print menu on page 67
	Micro change	set up micro adjustment change ■ *ENTER*: shifts to the sub menu Refer to: Micro Change menu on page 68
	---	■ *CANCEL*: shifts to the previous menu Refer to: User media menu on page 63

Initial print menu

Performs an initial adjust print

Setup item	Settings	Description
FeedLength	100 mm to <250 mm> to 500 mm	Changes the length of the media feed direction for initial adjust print. ■ *ENTER*: determines the setting. "Printing is displayd and initial adjust print starts. After printing the printer returns to Normal.
	---	■ CANCEL: shifts to the previous menu Refer to:Dist.Adj menu on page 66

Initial change menu

Sets up Initial Adjust change.

Setup item	Settings	Description
Init.	200.0 mm to <250.0 mm> to 300.0 mm	Sets up the initial adjust change
	---	■ *ENTER*: saves the setting and shifts to the previous menu. ■ *CANCEL*: Cancels the setting and shifts to the previous menu Refer to:Dist.Adj menu on page 66

Confirm Print menu

Performs confirm print

Setup item	Settings	Description
FeedLength	100 mm to <250 mm> to 500 mm	Changes the length of the media feed direction for the confirm print. ■ *ENTER*: determines the setting. "Printing" is displayed and initial adjust print starts. After printing, the printer enters the Normal state.
	---	■ *ENTER*: saves the setting and shifts to the previous menu. ■ *CANCEL*: Cancels the setting and shifts to the previous menu Refer to:Dist.Adj menu on page 66

Micro Print menu

Performs micro adjustment print

Setup item	Settings	Description
Micro print	Printing	Prints the following PF pattern with a focus on the micro adjustment value. Printing interval 1min
	---	■ *CANCEL*: shifts to the previous menu. Stops printing and returns to the previous menu if printing is in progress. Refer to:Dist.Adj menu on page 66

Micro Change menu

Sets up Micro Adjustment Change

Setup item	Settings	Description
Micro Change	- 20 pulse to <0 pulse> to 20 pulse	Sets up Micro Adjustment Change
	---	■ *ENTER*: saves the setting and shifts to the previous menu. ■ *CANCEL*: Cancels the setting and shifts to the previous menu Refer to Dist.Adj menu on page 66

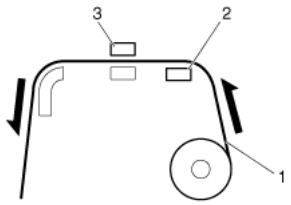
Pre heater menu

Sets up the Pre heater temperature.

Set up to preheat the media before printing and insulate the temperature change in the printer section.

Note

- **Preset temperature of Pre Heater varies depending on the media.**

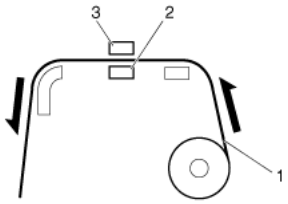
Setup item	Settings	Description
Pre Heater	OFF/ <30°C> to 50°C	Sets up the pre heater temperature.  1 = Roll media 2 = Pre Heater 3 = Print head
	---	■ *ENTER*: saves the setting and shifts to the previous menu. ■ *CANCEL*: Cancels the setting and shifts to the previous menu Refer to: User media menu on page 63

Platen heater menu

Sets up the Platen heater temperature.
Set up this menu to warm up the ink and improve the print quality.

Note

- **Preset temperature of Platen Heater varies depending on the media.**

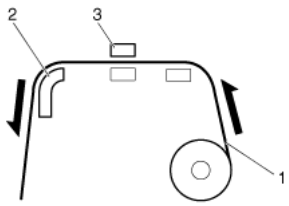
Setup item	Settings	Description
Platen Heater	OFF/ <30°C> to 50°C	Sets up the Platen heater temperature.  1 = Roll media 2 = Platen Heater 3 = Print head
	---	■ *ENTER*: saves the setting and shifts to the previous menu. ■ *CANCEL*: Cancels the setting and shifts to the previous menu Refer to:User media menu on page 63

Drier menu

Sets up the Drier temperature.
Set this menu to dry printed media.

Note

- **Preset temperature of Drier varies depending on the media.**

Setup item	Settings	Description
Drier	OFF/ <30°C> to 50°C	Sets up the Drier temperature.  1 = Roll media 2 = Drier 3 = Print head
	---	■ *ENTER*: saves the setting and shifts to the previous menu. ■ *CANCEL*: Cancels the setting and shifts to the previous menu Refer to:User media menu on page 63

StandbyHeating menu

Sets the time to preheater the heater while the printer is in standby mode.

Setup item	Settings	Description
StandbyHeating	10 min to <60 min> to 240 min	Sets the time to preheat the heaters. When more than the set time has passed. all the heaters switch OFF
	---	■ *ENTER*: saves the setting and shifts to the previous menu. ■ *CANCEL*: Cancels the setting and shifts to the previous menu Refer to:User media menu on page 63

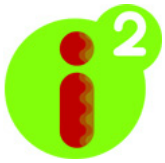
Vacuum Fan menu

Sets up the vacuum fan operation

Setup item	Settings	Description
VacuumFan	Low	Set when there is a possibility of a paper jam caused by failure in media loading when using soft media
	<High>	Set when using general media.
	---	■ *ENTER*: saves the setting and shifts to the previous menu. ■ *CANCEL*: Cancels the setting and shifts to the previous menu Refer to:User media menu on page 63

4.6.2 Effect menu

Thanks to Mutoh's revolutionary i² technology, it is possible to obtain impeccable printing quality even for the most difficult images.



For more information and examples, check the i² In-The-Box documentation.

Setup items	Parameters	Description
Effect	None	The effect function is not used ==> straight line printing.
	Wave	A wave pattern will be used to print the file without the known artefacts such as banding, ink bleed,... Please refer to the decision throughput path to know which wave form to use for which application. Refer to: Panel Setup Menu on page 62
	Fuzz	
	Fine&Wave	
	A-S.Fine&Wave	
	B-S.Fine&Wave	

Note

- **Most RIP software also allows controlling the weaving settings directly from the RIP.**

Use this menu to improve the print quality by means of intelligent interweaving print algorithms. (i²)

Setup item	Setting value	Description
Effect	None 1 None 2	The effect function is not used. If obvious white lines or uneven print density appear on the printed media in "None1" set it to "None2"
	<Wave 1> Wave 2	The printing joint will be the wave form. It will improve the print quality. If obvious white lines or uneven print density appear on the printed media in "Wave 1", change the setting to "Wave 2"
	Fuzz 1 Fuzz 2	This wave form gives a fuzzy joint between the consecutive print passes improving overall print quality. Set up this menu when obvious white lines or uneven print density appear on printed media in "Wave". If obvious white lines or uneven print density appear on printed media in "Fuzz 1" set to "Fuzz 2"
	Fine&Wave 1 Fine&Wave 2 Fine&Fuzz 1 Fine&Fuzz 2	Perform printing at a slower speed compared with "Wave" set up this menu when you want to improve the print quality compared with "Wave". If obvious white lines or uneven print density appears on the printed media in "Fine&Wave 1, change the setting to the one with the best print result.
	A-S.Fine&Wave	Performs "Wave" printing using one side of the nozzles of the print head. Since only one side of the nozzles is used, printing speed becomes half of "Wave 1 and Wave 2"
	B-S.Fine&Wave	Performs "Wave" printing using the other side of the nozzles of "A-S.FineéWave" since only one side of the nozzles is used, printing speed becomes half of Wave 1 and Wave 2". Set up this menu when you want to improve the print quality compared with "Fine&Wave"
	---	■ *ENTER*: Saves the settings and shifts to the previous menu. ■ *CANCEL*: cancels the settings and shifts to the previous menu.

Advantages

Smoother images

"i²" keeps the bleed between passes under control and makes colour banding less obvious. Small misalignments of the heads are becoming less critical. Misfiring/missing nozzles are less visible in the output.

Image printability

Images are easier to print with less signs of banding/bleeding. Some images can be printed at higher speeds, without quality loss. Some difficult images become printable at faster speeds. Especially sign-images have a much smoother surface.

ValueJet 1304 **= easier to use**

The step-adjust is becoming less critical, making it a lot easier for the user to have good quality outputs.

Gamut boost

Because of the previous benefits, we clearly see a colour gamut boost using the Intelligent Interweaving technique in combination with dedicated profiles.

Application Compatibility

Thanks to i², it is possible to reach predictable output results.

i² availability

Twelve different print modes are available on the ValueJet 1304. For each mode, 3 different wave patters can be chosen, resulting in different speeds. As you will see in the table below, 6 intelligent interweaving print modes are recommended by Mutoh.

Print mode	Resolution	# passes	dir	i² availability			
				None	Wave	Fine&Wave	S.fine& Wave
Quality 1	1440x1440	8	uni				
Quality 2	1440x720	4	uni				
Quality 3	720x720	4	uni				
Quality 4	720x720	4	bi				
Quality 5 (*)	720x720	4	bi				
Graphics 1	720x720	4	uni				
Graphics 2	720x720	4	bi				

Print mode	Resolution	# passes	dir	i² availability			
				None	Wave	Fine&Wave	S.fine& Wave
Graphics 3(*)	720x720	4	bi				
Banner 1	720x720	3	uni				
Banner 2	720x720	3	bi				
Banner 3	720x720	2	uni				
Banner 4	720x720	2	bi				

	Recommended modes
(*)	Print mode only selectable via RIP software and not selectable from the control panel of the printer

4.6.3 Flushing menu

Sets up the flushing operation while printing.

Setup item	Setting	Description
Flushing	Origin	Flushing is done in the spitting box. ■ *ENTER*: Saves the settings and shifts to the previous hierarchy. Refer to:Panel Setup Menu on page 62
	<On Media>	Flushing is done on the page margins. ■ *ENTER*: Saves the settings and shifts to the previous hierarchy. Refer to: Flushing return count menu on page 75
	---	■ *CANCEL*: cancels the settings and shifts to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.4 Flushing return count menu

Set the frequency that the print head returns to the original flushing box when setting "On Media" in the flushing menu.

Note

- **When increasing the flushing return count, clogging may occur while printing continuously.**

Setup item	Setting	Description
Return count	Once to <5 times> to 999 times	Set the flushing return count. Example: Once: return to the original spitting box every time the print head goes and returns once. 5 times: return to the original spitting box every time the print head goes and returns 5 times.
	---	■ *ENTER*: Saves the settings and shifts to the previous hierarchy. ■ *CANCEL*: cancels the settings and shifts to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.5 Side margin menu

Set up the right and left margins while printing.

Note

- **When selecting "On Media" in the flushing menu, the value of the side margin is set automatically.**

Setup item	Setting	Description
Side margin	<3 mm> to 25 mm	Set the side margins
	---	■ *ENTER*: Saves the settings and shifts to the previous hierarchy. ■ *cancel*: cancels the settings and shifts to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.6 Media initial menu

Set up whether the media width and edge will be detected when initializing the media.

Note

- **When media initial menu is set to "OFF", you can manually set the media width in the media width menu.**

Setup item	Setting	Description
Init.	OFF	The media is not detected
	Top&Width	Detect the media width and edge while initializing the media
	<Width>	Detect the media width while initializing the media.
	---	■ *ENTER*: Saves the settings and shifts to the previous hierarchy. ■ *cancel*: cancels the settings and shifts to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.7 Media Width/MediaWidth check menu

If media detection is switched off, the media width menu allows you to manually enter the media width.

Media width menu

Note

- **Setting a larger value than the actual media width in the media width menu may cause ink to be fired on the printer.**

Setup item	Setting	Description
Media width	<1.00 mm> to 1351 mm	Sets the media width
	---	■ *ENTER*: Saves the settings and shifts to the previous hierarchy. ■ *cancel*: cancels the settings and shifts to the previous hierarchy. Refer to:User media menu on page 63

Media width check menu

Setup item	Setting	Description
Media width	****mm	Display the media width that is detected while initializing.
	---	■ *ENTER*: Saves the settings and shifts to the previous hierarchy. *cancel*: cancels the settings and shifts to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.8 Winding unit menu

Set up whether the media width and edge will be detected when initializing the media.

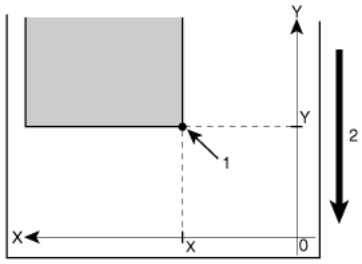
Note

- **When the winding unit is not installed, please do not set to "Type1" by doing so, the product will be unable to function properly.**
- **When the winding unit menu is set to "Type 1", the setting for the Prev. Stick menu is disabled.**

Setup item	Setting	Description
Take-Up	OFF	No use of the winding unit
	Type 1	Set to "Type 1" to use the optional winder
	---	■ *ENTER*: Saves the settings and shifts to the previous hierarchy. ■ *cancel*: cancels the settings and shifts to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.9 Origin menu

Set this menu when reprinting on the margin, when the printing data position is changed to the position of the already printed media.

Setup item	Setting	Description
Origin	■ X (media feeding distance): 000 mm to 9.999 mm ■ Y (print head transferring distance): 000 mm to 9.999 mm	Change the print head position and media feeding distance with the following keys. ■ >: Decrease the print head transferring distance ■ <: Increase the print head transferring distance. ■ +: Increase the media feeding distance ■ -: Decrease the media feeding distance  1: Starting position 2: Media feeding direction *ENTER*: Display "Moving Origin Pos." and move the print head to the starting position.
	Confirm Position==>E	*ENTER* or after a certain period of time: the setting value is determined. Print head returns to the original position. Save the setting and shift to the previous hierarchy.
	---	■ *cancel*: cancels the settings and shifts to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.10 Prev. Stick menu

Set up to prevent media from sticking when printing starts.

Note

- **When the winding unit menu is set to "Type 1" the setting for the Prev. Stick menu is disabled.**

Setup item	Setting	Description
Prev. Stick	OFF	Sticking prevention is not performed
	<ON>	The sticking prevention is performed. Feed the media back and forth to prevent sticking.
	---	■ *ENTER*: Saves the settings and shifts to the previous hierarchy. ■ *cancel*: cancels the settings and shifts to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.11 Media cut menu

Sets the media cutting operation after finishing printing.

Note

- **When the winding unit menu is set to "Type 1" the setting for the Media cut menu is set to "OFF".**

Setup item	Setting	Description
MediaCut	OFF	The media feed is not performed after printing
	Manual	Feed media to the media cut position after printing. Use a regular razor blade to cut the media. Refer to: Cutting media on page 91
	---	■ *ENTER*: Saves the settings and shifts to the previous hierarchy. ■ *cancel*: cancels the settings and shifts to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.12 CR movement menu

Sets up the range that the print head moves while printing.

Setup item	Setting	Description
CR Movement	Data	The print head changes the range of the print data width. Improve the print speed since decreasing the transferring range of the print head.
	Machine	The print head moves from origin to the maximum paper width.
	---	■ *ENTER*: Saves the settings and shifts to the previous hierarchy. ■ *cancel*: cancels the settings and shifts to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.13 Overwrite count menu

Sets up the overwrite count per line.

Setup item	Setting	Description
OverwriteCnt	<once> to 9 times	Sets the overwrite count.
	---	■ *ENTER*: Saves the settings and shifts to the previous hierarchy. ■ *cancel*: cancels the settings and shifts to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.14 Overwrite Wait menu

Sets up the waiting time while overwrite printing.

Note

- **By increasing the overwrite wait time, you allow more time for the ink to settle and fix.**

Setup item	Setting	Description
Overwrite Wait	<0.0 sec> to 0.1 sec to 5.0 sec	Set the overwrite wait time
	---	■ *ENTER*: Saves the settings and shifts to the previous hierarchy. ■ *cancel*: cancels the settings and shifts to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.15 Slant Check menu

Sets up slant detection during media loading.

Setup item	Setting	Description
Slant Check	OFF	Does not perform a Slant check
	<ON>	Performs Slant check between 2 consecutive print jobs
	---	■ *ENTER*: Saves the settings and shifts to the previous hierarchy. ■ *cancel*: cancels the settings and shifts to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.16 Auto cleaning menu

Sets up slant detection during media loading.

Setup item	Setting	Description
Auto Cleaning	OFF	The auto cleaning is not performed
	1 hours	When the selected time is reached, the auto cleaning is performed.
	2 hours	
	3 hours	
	4 hours	
	5 hours	
	6 hours	
	9 hours	
	12 hours	
	18 hours	
	24 hours	
	---	■ *ENTER*: Saves the settings and shifts to the previous hierarchy. ■ *CANCEL*: cancels the settings and shifts to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.17 Ink status menu

Display information of the ink cassette that is installed in the cassette slot.

Note

- **When displaying the Ink status menu, use genuine ink cassettes. When using ink cassettes other than the genuine ones, the ink status will not be displayed correctly.**

Setup item	Setting	Description
KCMY	0 to 100 (Unit%)	Remaining ink quantity of K, C,M, and Y colour is displayed
	---	■ *CANCEL*: cancels the settings and shifts to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.18 Roll Length menu

Display information of the ink cassette that is installed in the cassette slot.

Setup item	Setting	Description
Roll media	<OFF>	Roll length is not used
	Roll 1	Sets up the roll media length.
	Roll 2	
	Roll 3	
	---	■ *CANCEL*: cancels the settings and shifts to the previous hierarchy. Refer to:Panel Setup Menu on page 62

Roll media Length menu

Sets up the roll media length.

Note

- **When replacing the roll media, adjust the roll media length again. If the roll media length is not set, the residual quantity of roll media is not displayed correctly.**

Setup item	Setting	Description
Length	1 m to <30 m> to 99 m	Sets the roll media length
	---	■ *ENTER*: saves the settings and shifts to the previous menu. ■ *CANCEL*: cancels the settings and shifts to the previous hierarchy.

4.6.19 CR Maintenance menu

Use this to clean the wiper

Setup item	Setting	Description
CR Maint	Start	Performs a maintenance. After pressing the *ENTER*, the print head moves to the centre and the cleaning wiper moves forward.
	End	Complete maintenance. After pressing the *ENTER*, the print head and the wiper return to their original position.
	---	■ *CANCEL*: cancels the settings and shifts to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.20 Initialization menu

The setting value of the printer is returned to default.

Setup item	Setting	Description
Initialization	ALL	All settings return to factory default.
	Media Type	The setting of the media type menu are returned to factory default.
	Except MediaType	The settings other than the media type menu are returned to factory default.
	---	■ *ENTER*: display "initialling", and initialize the setting. ■ *CANCEL*: cancels the settings and shifts to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.21 Life times menu

The setting value of the printer is returned to default.

Setup item	Setting	Description
Life times	Head	Displays the operation life of each part. The operation life of a part is indicated by 5 asterisks (100%). As the part ages, the number of asterisks decreases one by one (20%) Change the part when all asterisks disappeared, and "Change" is displayed.
	Pump	
	CR Motor	
	PF Motor	
	---	■ *CANCEL*: cancels the settings and shifts to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.22 IP address menu

Sets the IP address of the printer.

Note

- **Be sure to set the IP address after consulting the network administrator.**

Setup item	Setting	Description
Life times	000.000.000.000 to <192.168.001.253> to 255.255.255.255	Change the IP address by using the following keys: ■ +: increase the value ■ -: Decrease the value. ■ *ENTER*: Change the value for the next segment
	---	■ *CANCEL*: Save the setting and shift to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.23 Subnet mask menu

Sets the subnet mask of the printer.

Note

- **Be sure to set the subnet mask after consulting the network administrator.**

Setup item	Setting	Description
Subnet makes	000.000.000.000 to <255.255.255.25> to 255.255.255.255	Change the subnet makes by using the following keys: ■ +: increase the value ■ -: Decrease the value. ■ *ENTER*: Change the value for the next segment
	---	■ *CANCEL*: Save the setting and shift to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.24 Gateway menu

Sets the gateway.

Note

- **Be sure to set the gateway after consulting the network administrator.**

Setup item	Setting	Description
Life times	000.000.000.000 to <192.168.001.253> to 255.255.255.255	Change the gateway by using the following keys: ■ +: increase the value ■ -: Decrease the value. ■ *ENTER*: Change the value for the next segment
	---	■ *CANCEL*: Save the setting and shift to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.25 Front Interlace menu

Set the front treatment function.
This function is applied when the banding appears at the beginning of the print.

Setup item	Setting	Description
Font Interlace	OFF	The Front treatment function is not used.
	ON	The front treatment function is used.
	---	■ *ENTER*: saves the setting and shifts to the previous menu. ■ *CANCEL*: Save the setting and shift to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.26 Version menu

Displays the version of the Firmware.

Setup item	Setting	Description
Ver.M/C	*.**(Main)/ *.**(Controller)	Displays the version of the firmware on the main and controller side.
	---	■ *CANCEL*: Save the setting and shift to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.27 Sleep mode menu

Sleep mode settings are configured. When you activate sleep mode, the printer operates as follows.

- The exhaust fan stops
- The vacuum fan stops
- All heaters stop
- All lamps switch off except for the power lamp
- Automatic head cleaning is performed after the time set in the Tier setting menu has expired.

Note

- **The cleaning mode reflects the settings in the operational panel.**

Setup item	Setting	Description
Sleep mode	Set timer	Sets the auto cleaning interval of the printer Refer to: Timer setting menu on page 88
	Start	Activates the sleep mode Refer to: Sleep Mode Start menu on page 89
	---	■ *CANCEL*: Save the setting and shift to the previous hierarchy. Refer to:Panel Setup Menu on page 62

4.6.28 Timer setting menu

Set the head cleaning interval of the printer for sleep mode. When more than the set time has passed, the print head is cleaned automatically.

Note

- **During sleep mode, even if the set time has passed, print head cleaning is not performed under following circumstances.**
  - The front cover is open
  - The media loading lever is raised
  - The waste fluid tank is full
  - The ink cassette is empty
  - The ink cassette is removed
  - An object other than an appropriate ink cassette is in the cassette slot.
- **When the printer returns to a normal state, head cleaning is restarted and sleep mode continues.**
- **If one of the above conditions occurs during head cleaning, cleaning is stopped. When the printer returns to a normal state, head cleaning is restarted.**

Setup item	Setting	Description
Set timer	1 hours	When passing the requested time, a head cleaning is performed.
	2 hours	
	3 hours	
	4 hours	
	5 hours	
	6 hours	
	9 hours	
	12 hours	
	18 hours	
	24 hours	
	---	■ *CANCEL*: shifts to the previous menu. Refer to Sleep mode menu on page 87

4.6.29 Sleep Mode Start menu

Activate sleep mode.

During sleep mode, "Restart ==> ENTER" will be displayed.

During sleep mode, pressing *ENTER* will return the printer to normal operation.

Note

- **If you try to switch to sleep mode under the following circumstances, "Don't start sleep mode" will be displayed and the printer will not change to sleep mode.**
  - The front cover is open
  - The media loading lever is raised.
  - The waste fluid tank is full
  - The ink cassette is empty.
  - The ink cassette is removed.
  - An object other than an appropriate ink cassette is inserted in the cassette slot.
- **Activate sleep mode again after returning the printer to a normal state.**
- **During sleep mode, pressing *ENTER* under the circumstances listed above will not return the printer to normal operation.**

Setup item	Setting	Description
Start	Start sleep mode?	■ *ENTER*: Activates the sleep mode ■ *CANCEL*: shifts to the previous menu without activation the sleep mode Refer to: Sleep mode menu on page 87
	Restart => ENTER	During sleep mode. *ENTER*: return the printer to normal operation.

4.7 Operating from the operation panel

Be sure to read and understand the safety warnings before handling the printer.

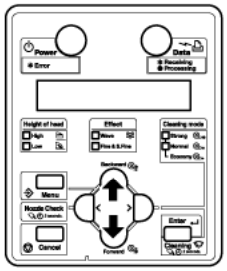
4.7.1 Feeding media

You can feed roll media at any position you want. Follow the procedure below to feed media.

Step 1: Confirm that the operation panel is Normal.

Step 2: Confirm that the media loading lever is returned to the front.

Step 3: Press *Forward* or *Backward*.



- Media is fed forward or backward.

Step 4: Release *Backward* or *Forward* after feeding media to the desired position.

4.7.2 Stop printing operation

If you want to stop printing for some reasons, operate as follows.

Step 1: Stop sending printing data from the computer to the printer.

Step 2: Press *Cancel*.

- The printer operates as follows

Printer status	Operation with the [CANCEL] key pressed
During printing	Terminates printing and deletes the remaining data in the printer
Receiving/Converting	Deletes the received/analysed data and the subsequent data.

Note

- **If a large amount of data is saved on the printer, the operation panel may not return to normal by a single [CANCEL] key operation. In such cases, wait for a few seconds and press *CANCEL* again.**

4.7.3 Cutting media

This sub section explains how to cut roll media.

Caution

- **When printing is finished, the media guide is at high temperature. Wait until the media guide cools off.**

When the Media Cut menu is set to "Manual"

Follow the procedure below to cut roll media.

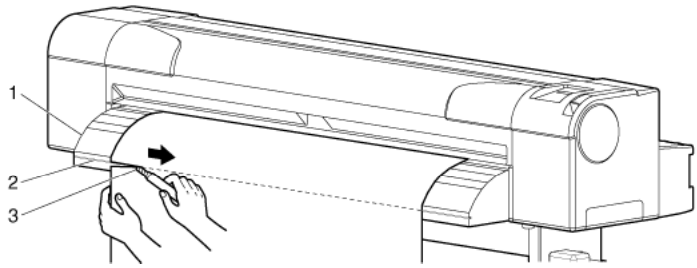
Step 1: Feed the roll media to the media cut position after printing.

- "Manual Cut -> ENTER" is displayed.

Step 2: Place a razor blade on the media cut groove on the media guide, and cut the roll media.

Caution

- **Pay attention to the following points when you cut roll media. Mishandling the razor blade may cause a cut on your finger or hand.**
- When you hold media, do not place your finger on the media cut groove.
- Move the razor blade along the media cut groove.



N°	Description
1	Media guide
2	Media cut groove
3	Razor blade

- Cutting roll media is complete.

Note

- **When loading the new roll media, cut the front edge of the media if it is not straight.**

When the Media Cut menu is set to "Off"

Follow the procedure below to cut roll media.

Step 1: Verify the following regarding the operational condition of the product.

- Printing or other operations are not in progress.
- The operation panel display is Normal.

Step 2: If the roll media cut position is changed, refer to Feeding media on page 90 and advance the roll media to the desired cut position.

Step 3: Place a razor blade on the media cut groove on the media guide, and cut the roll media.

Caution

- **Pay attention to the following points when you cut roll media. Mishandling the razor blade may cause a cut on your finger or hand.**
- When you hold media, do not place your finger on the media cut groove.
- Move the razor blade along the media cut groove.

- Cutting roll media is complete.

Note

- **When loading the new roll media, cut the front edge of the media if it is not straight.**

4.7.4 Changing and confirming settings while printing

While the printer is operating, you can change or confirm settings for the Panel setup menu.

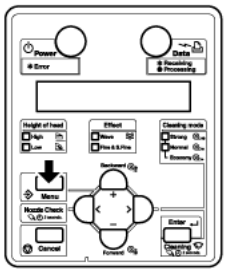
Procedure for changing and confirming settings while printing

Follow the procedure below to change or confirm settings for the Panel setup menu.

Step 1: Confirm that the printer is in one of the following conditions.

- Receiving
- Converting
- Printing
- Warming up

Step 2: Press *Menu*.



- "Menu 1: Print Start" is displayed.

Step 3: Press + or – to change or confirm settings.

Note

- **Refer to** Settings that can be changed or confirmed while printing on page 93 **for more information on this topic.**

Settings that can be changed or confirmed while printing

Note

- **The Print start menu is displayed only when the printer is warming up.**
- **When you change a setting during operation, be sure to select "Backup" to save the setting that you changed.**
- **If the printer returns to Normal without selecting "Backup", the changed setting is not saved.**

Setup item	Setting	Description
Print Start	—	*Enter*: If the heater temperature does not reach the set value during warming-up, printing starts.
Temperature	Pre	Check the current Pre Heater temperature.
	Platen	Check the current Platen Heater temperature.
	After	Check the current Drier temperature.
Pre Heater	Off / 30 °C to 50 °C	Change the Pre Heater temperature.
Platen Heater	Off / 30 °C to 50 °C	Change the Platen Heater temperature.
After Heater	Off / 30 °C to 50 °C	Change the Drier temperature.
PF Adjust	–20 pulse to 0 to 20 pulse	Change the feed adjustment value.
Backup	—	*Enter*: Save the changed setting.
	—	*Cancel*: The printer returns to Normal.

Chapter 5 Periodical maintenance

5.1 Done by end user

This section describes the periodical services requited on a ValueJet 1304 series printer. The periodical maintenance ensures stable printout quality of the machine. In the periodical maintenance, some service parts need to be checked, cleaned ore replaced.

Important

- **Be sure to wear gloves when working with inks or cleaning liquid.**

Note

- **The accessory kit, delivered with the printer, contains items to perform the periodical maintenance.**
  If running out of the necessary maintenance equipment, order a goodshape kit. This kit contains all items to perform another year of periodical maintenance.
- **Order numbers:**
  - Goodshape kit: KY-80292
  - Cleaning liquid (250ml): CL-90250

Perform periodical inspections according to the table below.

N°	Action	Frequency
1	Clean the wiper	Weekly
2	Clean around the bottom of the head	Weekly

Note

- **Do not insert or drop metal or other objects through openings of the printer. It could lead to an electric shock and / or fire.**
- **When substances or liquids such as water entered the printer, do NOT use the printer. It could lead to an electric shock and/or fire. Immediately**
- Switch OFF the printer.
- Disconnect the power plugs from the electric sockets.
- Contact your local Mutoh dealer.

5.1.1 Cleaning the printer

Periodic cleaning is necessary to use the printer in good condition.

5.1.2 Cleaning the outer case

This sub-section describes how to clean the outer case.
Wipe out dust and dirt attached to the outer case by using a soft cloth.

5.1.3 Cleaning the inside of the printer

This sub-section describes how to clean the inside of the printer.

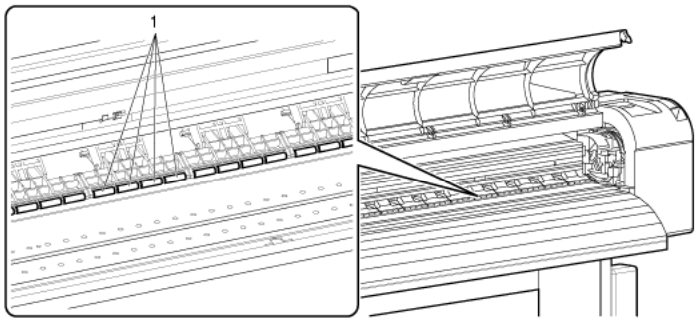
Follow the procedure below.

Step 1: Open the front cover.

Step 2: Remove paper powder and dust attached to the pressure rollers using a soft brush.

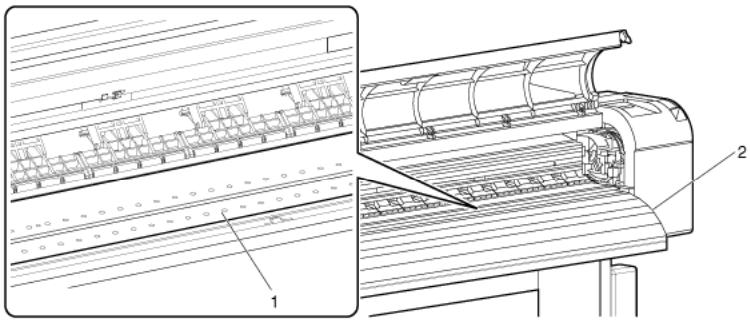
Note

- **Do not blow paper powder inside the printer using tools such as an air duster. It may cause an abnormal noise from the inside of the printer.**



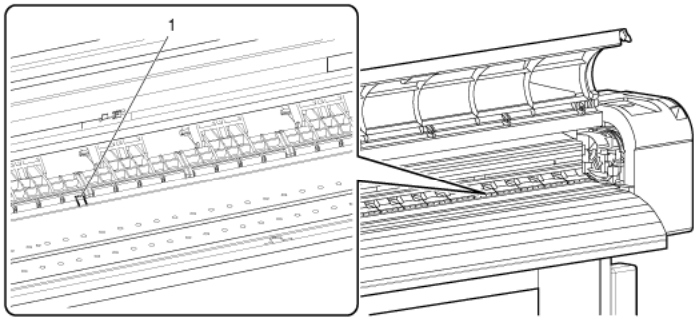
N°	Description
1	Pressure roller

Step 3: Apply a damp and tightly squeezed soft cloth to wipe out paper powder and ink attached to the platen and media guide.



N°	Description
1	Platen
2	Media guide

Step 4: Apply a damp and tightly squeezed soft cloth to wipe off the dirt of the unpainted (silver colour) area in the centre of the grid roller.



N°	Description
1	Grid roller

Clean the timing fence

Step 1: Open the front cover.

Step 2: clean the timing fence with a dry poly-knit wiper.

N°	Description
1	Timing fence

Clean the Y-rail

Step 1: Open the front cover.

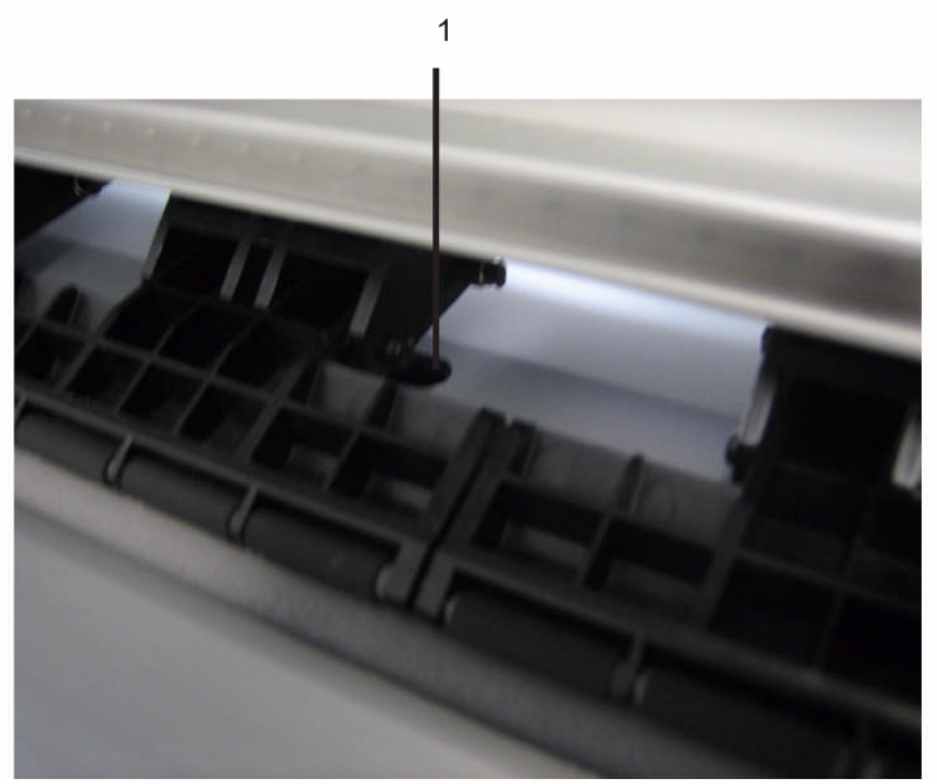
Step 2: clean the Y-rail with a poly-knit wiper.

N°	Description
1	Y-rail

Clean the P-rear sensor surface

Step 1: Open the front cover

Step 2: clean the P-rear sensor surface with a swab.



N°	Description
1	P-rear sensor

5.1.4 Head cleaning

If printed data is blurred or lacks part of it, clean the print head surface and nozzles (Head cleaning).

Follow the procedure below to perform Head cleaning.

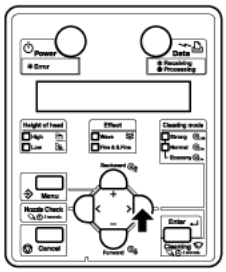
Note

- **When not using the printer for a long period (one week or more), perform a Head cleaning once a week.**
  If not performing a Head cleaning, the print head is clogged. Doing so will preserve print quality.
- **Remove media when cleaning.**
  Cleaning with media loaded may lead head crashes

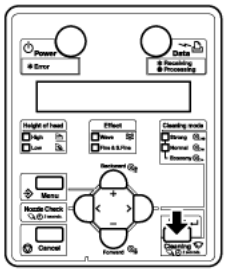
Step 1: Confirm that the operation panel is Normal.

Step 2: Confirm that the media loading lever is returned to the front.

Step 3: Press > to select the cleaning mode.



Step 4: Press *Cleaning* for at least 2 seconds.



- "Cleaning **%" is displayed.
- Start Head cleaning.
- After Head cleaning is complete, the operation panel shifts to Normal.

Note

- **If blurs or lacking parts in printed media do not disappear with one time of Head cleaning, perform Strong cleaning.**
- **If blurs or lacking parts in printed media do not disappear with several times of Head cleaning, refer to** Troubleshooting on page 107**, and take appropriate measures.**

5.1.5 Cleaning the cleaning wiper

This sub-section describes how to clean the cleaning wiper.

Cleaning time

Once a week, or when blurs or lacking parts appear on printed media after Head cleaning.

Cleaning method

Follow the procedure below to clean the cleaning wiper.

Note

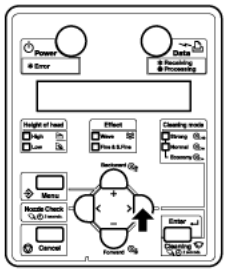
- **Use the poly-knit wiper to clean the cleaning wiper.**

Step 1: If the printer is switched ON, make sure that:

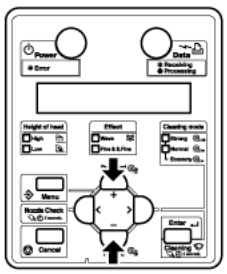
- Printing or other operations are not in progress.
- The operation panel display is Normal.

Step 2: Display the CR Maintenance menu.

- Press *Menu*.
  - "Menu 1: Setup>" is displayed.
  - The operation panel shifts to the Setup menu display.
- Press >.



  - "Set1: MediaType" is displayed.
- Press + or – to select "Set20: CR Maintenance".



- Press *Enter*.
  - "CR Mainte.: Start" is displayed.
  - The display enters the CR Maintenance menu.

Step 3: Press *Enter*.

- Maintenance starts.
- The print head moves to centre.
- "CR Maintenance: End" is displayed.

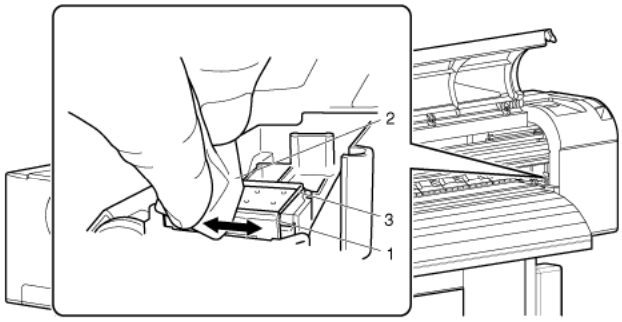
Step 4: Open the front cover.

Caution

- **While cleaning the cleaning wiper**
- **Do not touch the cleaning wiper and head cap unit.**
  Head cleaning may not be performed correctly because of oil from your hands.
- **Make sure to wipe the print head with a dry poly-knit wiper.**
  A wet poly-knit wiper may cause the print head to clog.

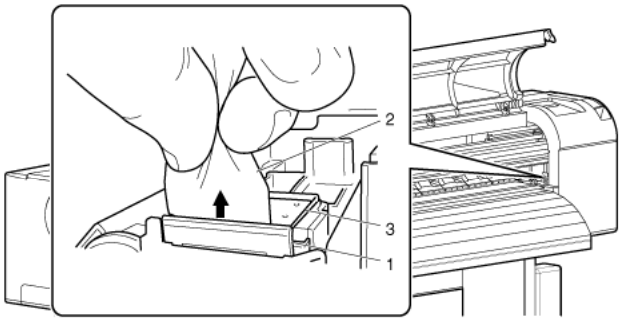
Step 5: Use the poly-knit wiper to remove the ink and dust on the cleaning wiper.

- Cleaning wiper front side: wipe horizontally



N°	Description
1	Cleaning wiper
2	Poly-knit wiper
3	Head cap unit

- Cleaning wiper back side: wipe vertically



N°	Description
1	Cleaning wiper
2	Poly-knit wiper
3	Head cap unit

Step 6: Close the front cover.

Step 7: Press *Enter*.

- The print head returns to its original position.
- "CR Mainte.: Start" is displayed.

Step 8: Press *Cancel*.

- The printer enters Normal.
- Cleaning of the cleaning wiper is complete.

5.2 Done by Authorized Mutoh Technician

This section describes the periodical part replacement and the periodical inspections required for this printer. Theses periodical services ensure the stable printing quality of this printer.

5.2.1 Periodical replacement of parts

Perform periodical replacements according to the table below. These replacements must be executed by an authorized Mutoh technician.

Part	Timing
Maintenance station	Once a year
Wiper	Once a year
Damper	Once a year

5.2.2 Periodical inspection part list

Perform periodical inspections according to the table below and perform cleaning and part replacement as necessary.

Part	Timing	Check point
Media guide Sub platen front surface	Several times a year	Media dust accumulation Foreign objects Damages
Timing fence (CR encoder detection slit plate)	Several times a year	Media dust accumulation Foreign objects Damages
Rail on the CR guide frame	Several times a year	Foreign objects
P_REAR sensor front surface	Several times a year	Media dust accumulation Foreign objects Damages
Clean pressure rollers	Several times a year	Media dust accumulation Foreign objects

Chapter 6 Troubleshooting

This chapter describes possible troubles during the use of this product and countermeasures.
If an error not included in any items of this section occurs, contact your local Mutoh dealer.

Note

- **If you want to receive product warranty, prepare the warranty certificate. If the warranty certificate is not presented, the repair will not be covered by the warranty even if within the warranty period.**
- **If you have signed a maintenance service contract, prepare that or a similar document.**

6.1 When you cannot generate graphics in the way you want

This section explains how to restore printing results that are blurred or have gaps and how to adjust print quality.

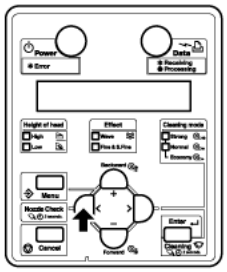
6.1.1 Perform Head cleaning

If the nozzle check result indicates that the checked points are blurred or missing, clean the print head.

Step 1: Switch ON the printer and load the roll media. Refer to: Setting roll media on page 42

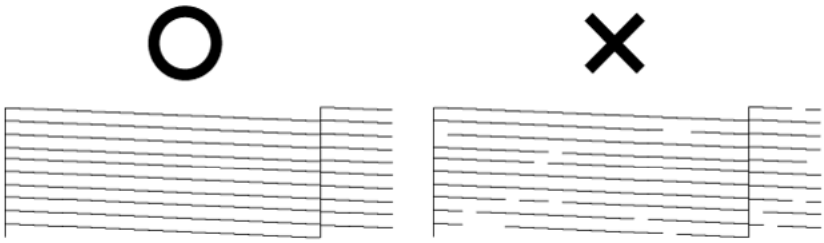
Step 2: Confirm that the printer functions normally.

Step 3: Press *Nozzle Check* for at least 2 seconds.



- Perform the nozzle check printing.

Step 4: Check the print sample and confirm that the checked points are blurred or missing.



Step 5: If the nozzle check result indicates that the checked points are blurred or missing, clean the head. Refer to: Open the front cover. on page 98

6.1.2 Adjust the print head

Follow the procedure below to adjust print quality.

Note

- **This printer was adjusted at factory shipment so that it obtains the optimum print quality.**
  Adjust the quality if the print quality changes after the installation environment or the media is changed.

Step 1: Switch ON the printer and load the roll media. Refer to: Setting roll media on page 42

Step 2: Confirm that the printer functions normally.

Step 3: Display the Printing mode menu.

- Press *Menu*.
  - "Menu 1: Setup>" is displayed.
  - The operation panel shifts to the Setup menu display.
- Press >.
  - "Set1: MediaType" is displayed.
- Press *Enter*.
  - "Media: Type 1" is displayed.
- Press + or – to select the media type to use.
- Press *Enter*.
  - "**>1: Print Mode" is displayed

Note

- **The selected media (Type 1 to 30) is displayed in "**".**

- Press *Enter*.
  - "Mode: Graphics 2 – > " is displayed.
  - The display shifts to the Printing mode menu.

Step 4: Select the printing mode that you want to use.

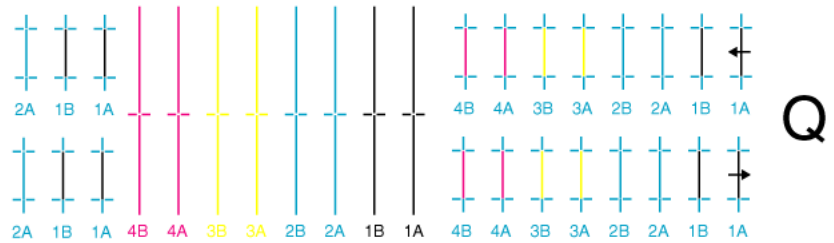
- Press + or – to select the printing mode to use.
- Press *Cancel* several times.
  - The operation panel returns to Normal.

Step 5: Display the Adjust Print menu.

- Press *Menu*.
  - "Menu 1: Setup>" is displayed.
  - The operation panel shifts to the Setup menu display.
- Press + or – to select "Menu3: Adjust Print".
- Press >.
  - "Adj.1: Confirm" is displayed.
  - The display enters the Adjust Print menu.

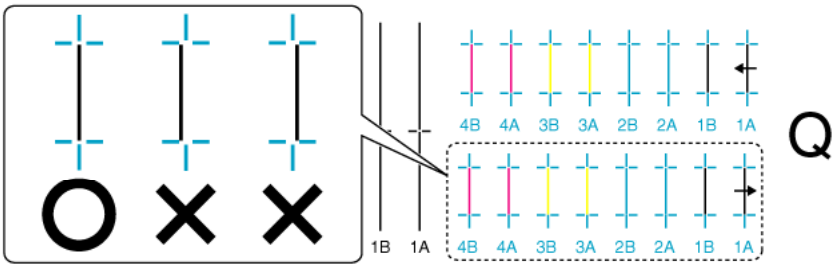
Step 6: Press *Enter*.

- A confirmation pattern for quality adjustment is printed.



- After the confirmation pattern is printed, the operation panel shifts to Normal.

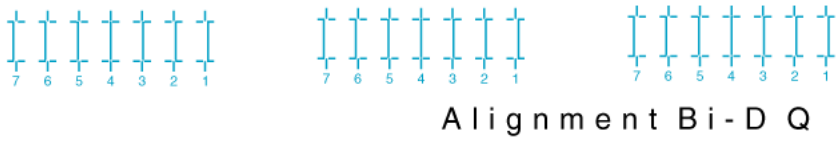
Step 7: Confirm that the confirmation pattern printing result is as follows.



- When the printing result is O
  You do not need perform Alignment.
  The procedure for Alignment is complete.
- When the printing result is X:
  You need to perform Alignment.
  Proceed to step 8.

Step 8: Register a set value for Bi-D Quality (two-way printing/quality priority mode).

- Display the Adjust Print menu in the same way as in step 5.
- Press + or – to select "Adj.5: Bi-D Quality".
- Press *Enter*.
  - Start Bi-D Quality pattern printing.
- Check three print samples that printed with Bi-D Quality pattern, and select the number that is not out of alignment.
  "4" is selected in the next printing sample.



- Press + or – to enter the number that you selected in step d.
- Press *Enter*.
  - The set value for Bi-D Quality is registered.
  - The operation panel returns to Normal.

Step 9: Register the setting for Bi-D Normal (two-way printing/normal mode) in the same way as in step 8.

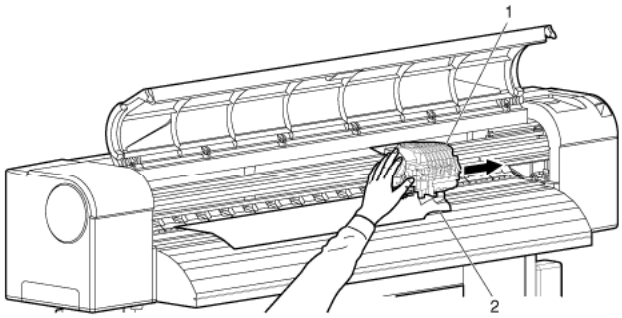
6.2 When media is jammed

When the set media is jammed, follow the procedure below to remove it.

Step 1: Switch OFF the power of the printer. Refer to: Switching the power OFF on page 28

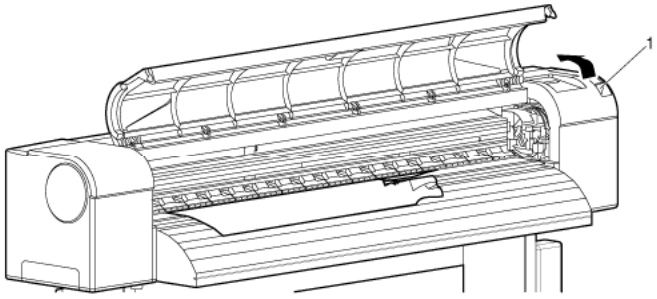
Step 2: Open the front cover.

Step 3: Move the print head section from the top of the media to the right.



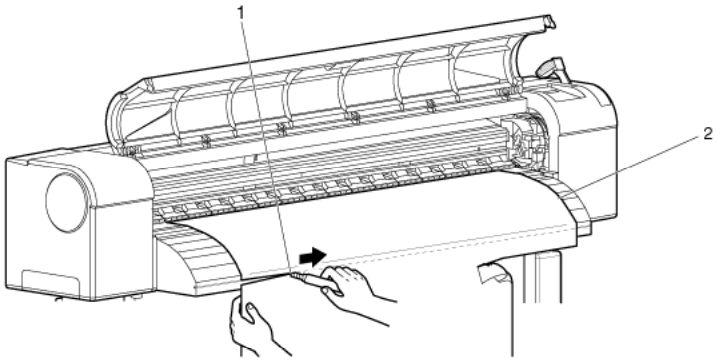
N°	Description
1	Print head section
2	Roll media

Step 4: Push the media loading lever to the back.



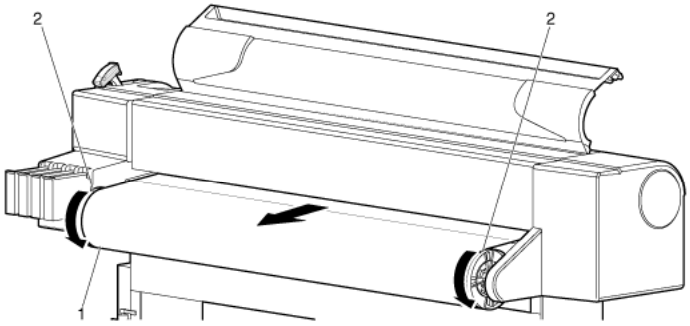
N°	Description
1	Media loading lever

Step 5: Pull the media to your side, and cut the torn part with cutting tools such as a razor blade.



N°	Description
1	Razor blade
2	Roll media

Step 6: Lift both ends of the scroller, and manually rewind the roll media.



N°	Description
1	Roll media
2	Scroller

Step 7: If paper dust or pieces of paper remain inside the printer, remove them.

6.3 Troubleshooting

This section describes undisplayed malfunctions and failures of the printer, possible causes and countermeasures.

6.3.1 Problems in installation and introduction

Cannot perform ink replenishment

N°	Possible cause	Remedy	Reference
1	Is the front cover open or media loading lever raised?	Close the front cover, or lower the media loading lever.	Installing roll media on page 40
2	Are the four ink cartridges fully inserted?	Fully insert the four ink cartridges.	Replacing ink cassettes on page 30

Ink does not come out after ink replenishment

N°	Possible cause	Remedy	Reference
1	Is the ink cartridge cold and frozen?	Leave the cartridge at room temperature for at least 3 hours, and perform cleaning several times.	Open the front cover. on page 98
2	Is the power turned OFF during ink replenishment?	Turn the power ON again and continue ink replenishment.	Replacing ink cassettes on page 30
3	Occasionally, normal printing cannot be performed after ink replenishment.	Perform cleaning several times, and check it each time.	Open the front cover. on page 98

6.3.2 Cannot print at all

Does not work at all after power activation

N°	Possible cause	Remedy	Reference
1	Is the power cable connected to the plug?	Connect the power cable.	Installation environment on page 26
2	Does the AC power supply provide the specified voltage?	Connect the cable to another outlet.	Installation environment on page 26
3	Is the front cover open or media loading lever raised?	Close the front cover. Lower the media loading lever.	Installing roll media on page 40

Does not work after loading the media

N°	Possible cause	Remedy	Reference
1	Is the front cover open or media loading lever raised?	Close the front cover. Lower the media loading lever.	Installing roll media on page 40
2	Is the media loaded at an angle?	Load the media straight.	Installing roll media on page 40
3	Is the ink cartridge inserted?	Insert the ink cartridge.	Replacing ink cassettes on page 30
4	Are you using the recommended media?	Use the recommended media.	MediaType menu on page 63
5	Are you using the printer in an environment other than the one specified, such as in direct sunlight?	Only use the printer in an environment that is specified for use.	Installation manual

When data is sent from the computer, an error occurs at the printer and nothing is printed

N°	Possible cause	Remedy	Reference
1	Is the type of printer selected correctly at the computer?	Check that the printer type settings on the computer side and printer side are the same.	Disposal of waste fluids on page 32
2	Are the interface requirements and command mode the same on the computer side and printer side?		

Cannot use the computer online using LAN

N°	Possible cause	Remedy	Reference
1	Is the network interface cable connected correctly?	Confirm the types of the cross and straight cables, and connect the network interface cable correctly.	
2	Are the network settings configured correctly?	Configure the network settings correctly.	Panel Setup Menu on page 62
3	Match the printer's network settings with the computer side environment.	Match this product's network settings with the computer side environment.	
4	Does the Data lamp turn on after sending printing data from the computer?	If the Data lamp does not turn on, contact the computer manufacturer.	—

6.3.3 Media-related troubleshooting

The media slips or is torn during initialization

Note

- **If the media is jammed or torn, remove it according to "**"When media is jammed on page 111"**.**

N°	Possible cause	Remedy	Reference
1	Are you using the recommended media?	Use the recommended media.	MediaType menu on page 63
2	Is the loading position of the media correct?	Set the media correctly.	Installing roll media on page 40
3	Is the scroller set correctly?	Set the scroller correctly.	Installing roll media on page 40
4	Are there any foreign materials such as paper attached to the pressurizing roller?	Clean the pressurizing roller.	Cleaning the inside of the printer on page 96

N°	Possible cause	Remedy	Reference
5	Are you using the printer in an environment other than the one specified, such as in direct sunlight?	Only use the printer in an environment that is specified for use.	Installation manual
6	Are you using folded, torn or rolled media?	Replace the media.	Notes on handling media on page 38
7	Does the media bend?	Use the recommended media. When using media other than the dedicated one, set the Vacuum Fan menu.	MediaType menu on page 63 and Panel Setup Menu on page 62

The media is crumpled during initialization

Note

- **If the media is jammed or torn, remove it according to ""**When media is jammed on page 111"**.**

N°	Possible cause	Remedy	Reference
1	Are you using the recommended media?	Use the recommended media.	MediaType menu on page 63
2	Is the loading position of the media correct?	Set the media correctly.	Setting roll media on page 42
3	Is the media loaded at an angle?	Set the media straight.	Setting roll media on page 42
4	Are there any foreign materials such as paper attached to the pressurizing roller?	Clean the pressurizing roller.	Cleaning the inside of the printer on page 96
5	Is the printer used in an environment other than the one specified, such as near an air conditioner?	Only use the printer in an environment that is specified for use.	Installation manual
6	Are you using folded, torn or rolled media?	Replace the media.	Notes on handling media on page 38

The wrong media size is set during initialization

N°	Possible cause	Remedy	Reference
1	Are you using the recommended media?	Use the recommended media.	MediaType menu on page 63
2	Is the media loaded at an angle?	Set the media straight.	Setting roll media on page 42
3	When the media is set, does it curl upward?	Straighten the media or set a new media.	Setting roll media on page 42
4	Is the printer used in an environment other than the one specified, such as near an air conditioner?	Only use the printer in an environment that is specified for use.	Installing roll media on page 40
5	Are you using media that has been printed on already?	Use a new media.	MediaType menu on page 63

Media jams frequently occur

Note

- **If media other than the recommended one is used, correct media feeding cannot be assured.**

N°	Possible cause	Remedy	Reference
1	Are you using the recommended media?	Use the recommended media.	MediaType menu on page 63
2	Is the media used in an environment other than the one specified?	Use the media in a dedicated environment.	Notes on handling media on page 38
3	Are you using the old media?	Replace it with new media.	Replacing roll media on page 50
4	Are you using the folded or wrinkled media?		
5	Does the media bend?	Use the recommended media. When using media other than the dedicated one, set the Vacuum Fan menu.	MediaType menu on page 63 Panel Setup Menu on page 62

The media veers during printing

N°	Possible cause	Remedy	Reference
1	Are you using the recommended media?	Use the recommended media.	MediaType menu on page 63
2	Is the loading position of the media correct?	Set the media correctly.	Setting roll media on page 42
3	Is the scroller set correctly?	Set the scroller correctly.	Installing roll media on page 40

6.3.4 Printing-related troubleshooting

Printing is partially stained or incomplete

Note

- **Proper print quality may not be obtained with the media other than the recommended one.**

N°	Possible cause	Remedy	Reference
1	Does the media include moisture?	Replace it with new media.	Replacing roll media on page 50
2	Are you using the folded or wrinkled media?		
3	Does the media bend?	Use the recommended media. When using media other than the dedicated one, set the Vacuum Fan menu.	MediaType menu on page 63 and Panel Setup Menu on page 62

The printing position is incorrect (some parts of the media cannot be printed on)

N°	Possible cause	Remedy	Reference
1	Is the loading position of the media correct?	Set the media correctly.	Setting roll media on page 42
2	Did you set up the origin and print position?	Cancel or reset the settings of the origin and print position.	Panel Setup Menu on page 62

Printing is blurred

N°	Possible cause	Remedy	Reference
1	Are you using the recommended media?	Use the recommended media.	MediaType menu on page 63
2	Are you using the thick or thin media?	Use the recommended media.	MediaType menu on page 63
3	Is the media printed on the printing surface?	Confirm the printing surface of the media and set it correctly.	Installing roll media on page 40
4	Did you perform Alignment?	Perform Alignment.	Adjust the print head on page 108
5	Did you perform Media feed compensation?	Perform Media feed compensation.	Media feed compensation on page 46
6	Is each heater set to the appropriate temperature?	Set it to the appropriate temperature.	Panel Setup Menu on page 62
7	Is the head height set to High?	Return the head height to "Normal (Low)".	Head height adjustment on page 45

White or black lines appear on printed media

N°	Possible cause	Remedy	Reference
1	Are you using the recommended media?	Use the recommended media.	MediaType menu on page 63
2	Is the scroller set correctly?	Set the scroller correctly.	Installing roll media on page 40
3	Is the nozzle in good condition?	Perform Head cleaning.	Open the front cover. on page 98
4	Did you perform Alignment?	Perform Alignment.	Adjust the print head on page 108

N°	Possible cause	Remedy	Reference
5	Did you perform Media feed compensation?	Perform Media feed compensation.	Media feed compensation on page 46
6	Is each heater set to the appropriate temperature?	Set it to the appropriate temperature.	Panel Setup Menu on page 62
7	Is the head height set to High?	Return the head height to "Normal (Low)".	Head height adjustment on page 45

Printing lines are not straight

N°	Possible cause	Remedy	Reference
1	Is the ink cartridge within the validity period?	Use a new ink cartridge.	Replacing ink cassettes on page 30
2	Are you using the recommended media?	Use the recommended media.	MediaType menu on page 63
3	Did you perform Alignment?	Perform Alignment.	Adjust the print head on page 108
4	Did you perform Media feed compensation?	Perform Media feed compensation.	Media feed compensation on page 46

Printing lines are duplicated or patchy

N°	Possible cause	Remedy	Reference
1	Is the nozzle in good condition?	Perform Head cleaning.	Open the front cover. on page 98
2	Is the head height set to High?	Return the head height to "Normal (Low)".	Head height adjustment on page 45

6.4 Error messages

This section describes messages displayed during normal printer operation or when errors occur, and solutions to the messages.

6.4.1 Status messages

This section describes messages displayed during printer normal operation.
When the product is operating correctly, each operation status is displayed as below.

N°	Display	Remedy	Reference
1	Ready to Print	Standby (Media is loaded).	—
2	Media End	Standby (Media is not loaded).	Installing roll media on page 40
3	Receiving	Receiving data.	—
4	Converting	Analysing data.	—
5	Printing	Under printing.	—
6	Warming Up	Warming up the heater.	—
7	Cleaning **%	Cleaning the head. Please wait a while.	Open the front cover. on page 98
8	Ink Refill **%	Filling the ink. Please wait a while.	Replacing ink cassettes on page 30
9	Washing	Washing the print head by Head washing. Please wait a while.	Replacing ink cassettes on page 30
10	Moving Origin Pos.	The print head is moving to the original printing position in the Origin setup menu. Please wait a while.	Panel Setup Menu on page 62
11	Confirm Position – >E	The print head is moving to the original printing position in the Origin setup menu. Press *Enter*.	Panel Setup Menu on page 62
12	Remove Cartridges	Washing the head. Attach the cleaning cartridge.	Panel Setup Menu on page 62
13	** Initialling **	Initializing the setting in the Initialization menu. Please wait a while.	Panel Setup Menu on page 62

N°	Display	Remedy	Reference
14	** Press 2sec. **	*Cleaning* or *Nozzle Check* is pressed for less than 2 seconds. Press the key for more than 2 seconds again.	Operation panel on page 19
15	Insert CleaningCart.	Washing the head. Attach the cleaning cartridge.	Replacing ink cassettes on page 30
16	Insert InkCartridges	Filling the ink. Insert an ink cartridge.	Replacing ink cassettes on page 30
17	Transport Mode	Preparing for transportation. Please wait a while.	Transporting the printer on page 36
18	Media: Type ** OK?	Initializing the media. Please wait a while. (** represents the setup media type.)	MediaType menu on page 63
19	Media Initial		
20	Cover Open	The front cover is open.	Installing roll media on page 40
21	Lever Up	The media loading lever was switched to the back side. Set the media.	Installing roll media on page 40
22	Manual Cut -> ENTER	Roll media is fed to the media cut position after printing. Press *Enter* after cutting media.	Cutting media on page 91

Note

- **If any message that is not in the table above is displayed on this product, there is some operation malfunction.**
- **The value of the Authorization Code may be displayed for the display of the option function.**
  For details, contact your local Mutoh dealer.

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